



#### **REPORT OF**

#### **DEVELOPMENT PARTNERS ROUND TABLE**

#### AND

# INFORMAL PLANNING MEETING OF THE VOLUNTARY COOPERATION PROGRAMME (WMO-VCP-IPM)

Ministry of Foreign Affairs Mexico City

6 &7 March 2012

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#### DEVELOPMENT PARTNERS ROUND TABLE

# MODERNIZATION PROGRAMMES / PROJECTS FOR NATIONAL HYDRO- METEOROLOGICAL SERVICES TUESDAY 6th March 09.30

#### 1. Opening Address:

- 1. The opening addresses of the meeting were given by Mr Michel Jarraud, Secretary General of WMO, Mr José Luis Luege Tamargo, Director General of CONAGUA and Mr Adrián Vázquez Gálvez, Director of National Meteorological Service of Mexico and permanent representative to the WMO.
- 2. The meeting was attended by IPM Focal Points, the representatives of the following WMO Members, Argentina, Canada, China, Finland, Germany, Japan, Mexico, New Zealand, Republic of Korea, Spain, United Kingdom and United States of America. Representatives from the following UN and other partner organizations joined the meeting to share information about on-going development project initiatives related to weather, climate and water: Inter-American Development Bank (IADB), International Civil Aviation Organization (ICAO), Caribbean Institute of Meteorology and Hydrology (CIMH) and World Bank. The full list of participant is given in Annex I.

#### 2. Introductions and background to the meeting.

- 3. The focus of the meeting was on overview and experience sharing on Global, Regional and National Programmes related to enhancing HydroMet Capacities for improved Weather, and Climate and Disaster Risk Reduction Services.
- 4. The agenda agreed by the meeting is given in Annex II.
- 3. Overview and experience sharing from WMO Members NMHS-ODA Partnerships, Development Partners and Development Financing Partners related to enhancing Capacities for Improved Weather, Climate and DRR Services
- 5. The meeting was informed on cooperation activities between NMHSs and their National Official Development Aid agencies to support hydrometeorological development projects in developing and least developed countries. Various IPM Members shared their experience, best practices and lessons learnt. The meeting noted that the NMHSs have very different type of relationships with their respective national aid agencies, but in general more advocacy and closer cooperation with the national institutions is needed. Also, the need for neutral and objective evaluations of the development projects and their impact was stressed.
- 6. The meeting was briefed on the experiences of international organizations in enhancing weather, climate and disaster risk reduction service capacity. The World Bank gave an overview of their activities in the field of meteorology and hydrology and underlined the need to test government commitment for project sustainability before implementation and long-term engagement in order to achieve sustainable solutions. The Secretariat briefed the meeting on the ongoing regional development projects and programmes.

- 7. For better coordination purposes, the meeting suggested that a matrix mapping the different actors and projects by geographical (country) and thematics should be prepared (now attached as Appendix 1 to this document).
- 8. In addition, the meeting recommended to the WMO Executive Council that the Regional Association Management Groups should take a stronger lead on the coordination of different development activities in their respective region and countries. In this respect, the Management Groups could consider the organization of regional donor coordination meetings to discuss regional initiatives and priorities with donors

#### 4. Perspectives on specific projects in Latin America and the Caribbean Region

9. The meeting was informed on specific projects in Latin America and the Caribbean Region that are on-going or in the pipeline in the near future. Since the meeting was organized for the first time in this region, the IPM wanted to use this opportunity to get a better understanding of the ongoing activities and the different actors. The meeting welcomed the initiatives by members such as Argentina, Mexico and Brazil in the region to support other members in their capacity development.

### 5. Round Table discussion on possible synergies and interactions between partners and or projects

- 10. The group held extensive and wide-ranging discussions on capacity building and development needs and best practices and underlined the need for more efficient coordination and information sharing between the different actors and donors. It was stressed that the Informal Planning Meeting plays a significant role in this, both within and external to WMO community.
- 11. It was recognized also that access to external funding is still a problem to most of the participating NMHSs and a possible solution to this could be joint proposals developed together with two or more NMHSs from both the beneficiary and donor side.
- 12. It was agreed that a Round Table session such as this one be a component of the Annual IPM.

#### WEDNESDAY 7th MARCH

#### WMO VOLUNTARY COOPERATION PROGRAMME 2011 REVIEW AND REPORT

#### 1. OPENING OF THE MEETING

- 1. The meeting opened with a Brief Address from the Chair, Mr Jaakko Nuottokari (Finland). He recalled the interesting discussions during the previous days Round Table and welcomed the high degree of investment activity in enhancement of HydroMet Services that was highlighted during the discussions and also the clear commitment of participants to future cooperation and better integration of activities.
- 2. During the past year the Informal Planning Meeting of the Voluntary Cooperation Programme has attracted new Members and the chair especially welcomed the participants who are attending the meeting for the first time.

#### 2. REPORT OF THE VCP 2011

#### 2.1. Overview VCP and VCP Coordinated Activities 2011

- 3. The meeting was informed of the activities supported at the national level in developing and least developed countries under the Voluntary Cooperation Programme including through the VCP(F) and through activities coordinated through WMO VCP(ES).
- 4. The meeting welcomed the information that in 2011, in addition to major regional development projects, support in the form of replacement, upgrading and extension of observing and communications infrastructure was provided through the VCP Programme. Full details are provided in Annex IV. In terms of VCP(ES) and VCP(F), support provided amounted to some US\$ 1,901,762. More than 70% of those requests for assistance that met fell within the VCP Guidelines were met. Additionally, six members made cash contributions to the VCP Fund (VCP (F)) amounting to approximately US\$ 148,678.
- **5.** Full details on VCP-F expenditure for 2011 are provided in Annex IV Appendix 2 and 3 and summarized in Table 1 below. Table 2 indicates expenditure trends over the period 2007 to 2011.
- **6.** In addition, the meeting was briefed on the support provided through the Emergency Assistance Fund. In 2011, the support provided amounted to approximately US\$ 15,915 and benefited three countries, namely Haiti, Pakistan, and Myanmar.

Table	Table 1 - VCP (F) Activities Supported in 2011 (incl. requisitions)							
1	Expert services	61,819						
2	Fellowships and training activities	152,653						
3	Equipment and software	39,076						
4	Internet capabilities	9,763						
5	VCP Management (Website Update, Brochure, Communication-Visibility Actions)	10,979						
	TOTAL	274,290						

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Activity Area	2007	2008	2009	2010	
Project Development Activities			34,648	4,236	
VCP spares/shipping/equipment	170	147,267	281,782	64,255	3
Expert services	14,013	16,528	33,342	52,407	6
Short-term fellowships	45,339	106,570	133,530	62,928	9
Group Training Activities		20,999			27
TCDC activities	4,462				
Improvement of GTS	59,316				
Improvement of GTS Asia/Pacific					
Improvement of GTS Africa	79				
Improvement of GTS South America					
Improvement of GTS South-East RA VI					
Improvement of GTS Central & Eastern Euro		3,238			
Improvement of upper-air observing systems	22,643	28,688			
Upper-air stations & GCOS	7,230		18,851		
Improvement of GDPS					
Agricultural meteorology activities					
Support to CLICOM & climatological activities		4,490	38,472	62,774	
Mitigation of natural disasters					
Emergency disaster assistance	101,553			218,741	
ACMAD					
EAMAC	585				
Operational hydrology activities	79				
Improvement of satellite reception					
Internet capabilities		13,916	6,257	11,815	
Long-term fellowships	1,682			4,233	2
Support to LDCs	50,000				
Public Weather Services				25,276	
Training activities by ETR	1,229				
VCP Management			17,288	29,006	1
I VI P Management	1		17.288	29.006	

- **7.** In 2011, seven donor Members offered equipment and / or expert services within the framework of the VCP Equipment and Services Programme (VCP-ES) including for outstanding requests carried over from previous years. In total, 25 projects were supported through VCP (ES) Coordinated in 2011 (Table 3).
- **8.** Project requests were mainly aimed at strengthening surface observing stations, strengthening communications systems, and improving meteorological applications. Some requests concerning TV weather presentation and expert services for legislative purposes were also received.
- 9. VCP Management Activities focused in 2011 on retirement and / or supporting outstanding VCP requests and discussions with Scientific Programmes and Regional Offices concerned in order to support valid projects using the VCP (F) and close requests that are no more valid. In the end of the year 2011. 19 VCP requests remained unmet in the system (including 10 requests from 2011).

	Tab	le 3 - VCP Coordinated Proje	cts supported in 2011	
	Requesting Country	Focus	Supporting country	Amount (estimates
1	Pakistan	Restoration of ten automatic weather stations in flood affected areas	Finland	USD 150,000.00
2	Pakistan	Restoration of ten meteorological observatories in flood affected areas	China	USD 70,000
3	Sudan	Radiosonde transmitters and balloons	Switzerland (GCOS)	USD 75,000
4	Mauritius	Provision of 400 radiosondes for wind, temperature and humidity observations in the South West Indian Ocean	Switzerland (GCOS)	USD 50,000
5	United Republic of Tanzania	Acquisition of sondes for observation of upper air information of weather and climate at Dar es Salaam	Switzerland (GCOS)	USD 75,000
6	Moldova	Completion of the Hydrologist- Forecaster Automated Workstation Project	Russian federation	Unknown
7	Sri Lanka	Balloons for the CINDY/DYNAMO field experience	Japan and Totex	USD 21,000
3	Democratic Republic of Congo	Rehabilitation of three meteorological stations	Netherlands (GCOS)	USD 200,000
)	Zambia	Telecommunications equipment	Netherlands (GCOS)	USD 70,000
10	Cook Islands	Radiosondes at Ratoronga	Japan (GCOS)	Unknown
11	Cook Islands	Renovation of two GSN stations	Japan (GCOS)	Unknown
12	Bangladesh	Engineering services for migration of data exchange code to the table Driven Code Format as well as system maintenance	Japan and Oriental Electronics, Inc.	Unknown
13	Uruguay	5 mercurial barometers	Germany	USD 500
4	Ecuador	5 mercurial barometers	Germany	USD 500
15	Cuba	10 mercurial barometers	Germany	USD 1000
16	Panama	3 mercurial barometers	Germany	USD 300
17	Peru	5 mercurial barometers	Germany	USD 500
18	Honduras	4 mercurial barometers	Germany	USD 400

	Table 3 - VCP Coordinated Projects supported in 2011										
	Requesting	F	O a satis a sacretar	A							
	Country	Focus	Supporting country	Amount (estimates)							
19	Bolivia	4 mercurial barometers	Germany	USD 400							
20	Dominican Republic	5 mercurial barometers	Germany	USD 500							
21	Colombia	6 mercurial barometers	Germany	USD 600							
22	Argentina	5 mercurial barometers	Germany	USD 500							
23	Costa Rica	1 mercurial barometer	Germany	USD 100							
24	Paraguay	5 mercurial barometers	Germany	USD 500							
25	Nigeria	BSRN Station Ilorin	Germany (GCOS)	USD 35,000							

#### 2.2 Overview Member Technical Cooperation Activities 2011 and planned for 2012

- 17. The meeting was also informed of a broad range of development assistance being provided through bi-lateral means by WMO Members to improve the delivery of climate, weather and water related service in developing country member states including the efforts of Argentina, Canada, China, Finland, Germany, Japan, Mexico, New Zealand, Republic of Korea, Spain, United Kingdom and United States of America. The full details of these activities have been provided in Annex IV). A large number of countries were supported through bi-lateral arrangements and the value of the total support provided is estimated to some **US\$ 24,951,779**.
- 18. The chair summarized some of the challenges and opportunities that the national meteorological and hydrological services (NMHSs) are facing while implementing development projects. The main challenges include lack of mandate as well as insufficient human resources for this type of activities. Also, ties with the national development agencies and the NMHSs are sometimes weak and should be strengthened. New funding initiatives as well as new partnerships with non-traditional partners, for example with non-governmental organizations and the private sector, can offer new opportunities for the NMHSs.
- 19. It has been previously noted that there is some lack of clarity as to what activities should be reported under VCP-IPM bi-lateral cooperation activities and lack of consistency in reporting amongst the IPM member countries. To overcome this, a new reporting template was introduced prior to the meeting and based on the feedback from the participants, the meeting supported the idea of a common reporting template.

#### 2.3 WMO Voluntary Cooperation Programme – 2011 Financial Contributions

The total Members' contributions to the WMO Voluntary Co-operation Programme in 2011 are shown in **Table 4** in terms of VCP(ES) and VCP(F) and reported bi-lateral support. Cash contributions to the VCP Fund (VCP(F)), approximately **USD 148,678** while USD **1,788,084** and equivalent support was provided to VCP Coordinated Projects through WMO and some **USD 24,951,779** equivalent through bi-lateral arrangements for a total investment of **USD 26,888,541**.

Regarding reported bi-lateral figures are of course very indicative. There are some difficulties with representing "Reported" figures and it is likely that not all IPM members have reported similar activities under this section.

	VCP(F)	VCP(ES)	Bi-L	Total	
Member	( )	Equipment	As Re	eported	
		and Services	Equip &	Fellowships	
		through	Services	&	
		WMO		Training	
Argentina			41,500	27,714	69,214
Australia	51,773.63		7,55	9,226	7,611,000
Canada			493,700	53,000	546,700
China	10,000.00	107,754	1,411,500	769,530	2,298,784
Hong Kong				35,000	35,000
Finland		150,000	2,25	60,000	2,400,000
France			395,349	659,186	1,054,535
Germany		40,800	1,77	7,911	1,78,711
Japan	54,230	608,663	unk	nown	662,893
Maldives	1,000.00				1,000
Mauritius	1,674.11				1,674
Netherlands		270,000			270,000
New Zealand			1,90	06,817	1,906,817
Republic of Korea	30,000.00		1,240,000	415,094	1,685,094
Russia					
Spain			2,60	0,000	2,600,000
Switzerland		200,000	188,500		388,500
UK			1,448	,619.10	1,448,619.10
USA		410,867	1,67	9,133	2,090,000
Total	148,678	1,788,084	24.9	51,779	26,888,541

#### 3. WMO Capacity Development Strategy

20. The Secretariat briefed the participants on the current status of the WMO Capacity Development Strategy (link). IPM also agreed that the participants are ready to comment on the Capacity Development Strategy after the EC Working Group on Capacity Development (EC-CD) has provided their initial feedback. The meeting welcomed initiatives to strengthen cooperation between the IPM group and the EC-CD.

#### 4. Update on GFCS

21. The meeting was briefed on the process of the Global Framework for Climate Services. The meeting noted that capacity development is a key issue for the implementation of the GFCS and will require a coordinated effort by all WMO members to be successful. The meeting expressed its support to the GFCS initiative and stressed the national coordination of GFCS implementation. The meeting welcomed the development of the GFCS capacity development strategy and noting the timeline offered to provide comments and feedback.

#### 5. WMO continuous improvement process for development assistance

22. The Secretariat briefed the meeting on the process regarding the WMO arrangements for assisting Members to access the Adaptation Fund (Annex V). A Circular has been sent to the PRs concerned detailing the project submission process.

- 23. The meeting was informed on the newly established Project Coordination Unit in the DRA-RMO (Annex VI) and fully supports this concept as well as the project oversight board to improve project delivery. The secondment of Mr Wayne Elliott from the UK Met Office to the Project Coordination Unit was warmly welcomed and other members were encouraged to consider secondments as a way of supporting the Secretariat.
- 24. The meeting was also provided with additional information on the WMO Support Cost Policy Review.

#### 9. Date and place of the next meeting of the IPM

- 25. The group agreed that the decision on the date and place of the next Informal Planning Meeting will be made later in the year with regard to the WMO calendar.
- 26. It was also agreed that from 2014 onwards IPM should consider meeting biannually together with the EC Panel of Experts on Education and Training.

### 2012 Informal Planning Meeting (IPM) And

Development Partner Round Table (Mexico City, Mexico, 6 to 7 March 2012)

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WORLD METEOROLOGICAL ORGANIZATION

INFORMAL PLANNING MEETING OF THE VOLUNTARY COOPERATION PROGRAMME MEXICO CITY, MEXICO 6th – 7th MARCH 2012

IPM/2012/Doc. 1A

ITEM: 1

Original: ENGLISH

## Ministry of Foreign Affairs Mexico City

#### DRAFT PROVISIONAL ANNOTATED AGENDA

TUESDAY 6th March 09.30

### MODERNIZATION PROGRAMMES / PROJECTS FOR NATIONAL HYDRO- METEOROLOGICAL SERVICES

#### 1. Opening Address:

Michel Jarraud, Secretary General WMO Felipe Adrian Vazquez Galvez, Permanent Representative of Mexico to the WMO Jaakko Nuottokari, Chair IPM, International Section, FMI and WMO Seconded Expert

#### 2. Introductions and background to the meeting.

Overview and experience sharing Global / Regional Programmes related to enhancing HydroMet Capacities for improved Weather, and Climate and Disaster Risk Reduction Services: - WMO, WB, IADB and other Development Partners, NMHS Int. Departments engaged with <a href="National ODA Agencies">National ODA Agencies</a> (Foreign Ministries and / or National Overseas Development Assistance Agencies (AID Agencies) in NMHS Development Projects:

- Brief Introduction to Session (IPM Chair)
- Presentation from Host Country on current and proposed Cooperation Support in the Region
- Presentation from WMO on Regional NMHS Development Projects and Programmes including Road Map for Strengthening of Risk Assessment and Early Warning Systems for hydro-met and climate Hazards in the Caribbean
- Presentation from WB GFDRR / Weather and Climate Information Decision-Support Systems (WCIDS)
- Presentation from IADB on related Programmes / Projects
- Presentation from Finland on NMHS Development Projects
- Presentation from Korea on NMHS Development Projects with KOICA
- Presentation from Japan Finland on NMHS Development Projects with JICA
- Presentation from Spain on NMHS Development Projects

Perspectives on specific projects in LAC Region (exact topics covering thematic and regional / national representativeness to be confirmed).

- 4.1 Modernization Project for National Meteorological Service (SMN) of México
- 4.2 Costa Rica Hydro-Met EWS
- 4.3 Dominican Republic Coastal Inundation Forecast Demonstration Project (CIFDP)
- 4.4 Capacity Development Activities Caribbean Institute for Meteorology and Hydrology

Round Table discussion on possible synergies/interactions between partners and projects.

#### WEDNESDAY 7th MARCH

#### WMO VOLUNTARY COOPERATION PROGRAMME 2011 REVIEW AND REPORT

#### 9. OPENING OF THE MEETING

1.1 Brief Address from Chair

#### 10. REPORT OF THE VCP 2011

- **10.1.** Overview VCP and VCP Coordinated Activities 2011
- **10.2.** Overview Member Technical Cooperation Activities 2011 and planned for 2012. (Excluding those covered in Agenda Item 3 on March 6<sup>th</sup>)
- **10.3.** Discussion and agreement on priority areas for VCP and Technical Cooperation for 2012 / 13

#### 11. WMO CAPACITY DEVELOPMENT STRATEGY

- Report of the EC Working Group on Capacity Development
- DRAFT Capacity Development Strategy
- 12. WMO ARRANGEMENTS FOR ADAPTATION FUND
- 13. WMO PROJECT COORDINATION UNIT
- 14. UPDATE ON GFCS
- 15. WMO SUPPORT COST POLICY REVIEW
- **16. ANY OTHER BUSINESS**
- 17. DATE AND PLACE OF THE NEXT MEETING OF THE IPM

#### VCP (F) AND VCP (ES) ACTIVITIES 2011

#### Summary and Purpose of Document

This document provides information on Voluntary Cooperation Programme Activities during 2011 including VCP Coordinated Programmes.

#### 1. Management of the Voluntary Cooperation Programme

#### 1.1 Management of the Voluntary Cooperation Programme

VCP Management Activities in 2011 focused on:

- Enhancing the visibility of capacity development and VCP Programme, and ensuring the cost-effective and efficient management of the VCP Programme and the timely distribution of the relevant information to Members:
- More rapid response to VCP Members' requests for assistance using the VCP(F), the Emergency Fund or through the VCP Coordinated Programme;
- Retirement and / or supporting outstanding VCP requests;
- Strengthening working relationship with Scientific Departments and Regional Offices for support of VCP projects;
- Upgrade of Website;
- Securing additional human resources support for RMO and VCP Programmes.

### 1.2 2011 Informal Planning Meeting on the VCP and related Technical Cooperation and Executive Council Working Group on Capacity Development (EC-CD)

The 2011 Informal Planning Meeting (IPM) on the Voluntary Co-operation Programme (VCP) and related Technical Co-operation Programmes met in Geneva, Switzerland from 11 to 12 April 2011 under the chairmanship of Mr Jaakko Nuottokari (Finland). The meeting was attended by representatives of China, Finland, France, Germany, Japan, Russian Federation, Spain and United Kingdom. During the Development Partners Round Table, the meeting was also attended by representatives of EUMETSAT, UNDP, UNEP, UNISDR, WHO and World Bank.

#### 2 WMO Voluntary Cooperation Programme – Activities supported

#### 2.1 VCP (F) Supported Activities

A wide range of activities were supported through the VCP-F in 2011 including:

#### **Expert Missions and services:**

- Costa Rica: Participation to the Satellite direct readout conference
- Colombia: Implementation of a quality management system for the provision of meteorological services for aviation
- Expert mission to the Bangladesh Meteorological Department for the migration to TCDF on the GTS/Message Switching System, Dhaka, Bangladesh, 8-15 May 2011Myanmar: Expert mission for the training on MTSAT data utilization
- Review of Vanuatu Meteorological Act
- Development of Niue Meteorological Legislation

- WMO fact-finding mission to the State Hydrometeorological Administration (SHMA), Pyongyang, DPRK
- Expert mission in Seychelles for the installation of two Automatic Weather Stations
- Expert Mission in Suriname to diagnose a EEC Weather Radar Type WR100-5, Paramaribo, Suriname, 14-18 February 2011

#### VCP Spares/shipping of equipment

- Samoa: Emergency telecommunications system
- Acquisition of winch for tilting device and freight charges for Seychelles
- Purchase of software for transmission of meteorological data in Haiti
- Upgrade of Cook Islands Regional Basic Synoptic Network
- Provision of hydrogen generator for Guinea, Conakry

#### **Internet Connection Services**

- Provision of Internet Connection for Guinea Bissau
- Internet Connection Services for Afghanistan Meteorological Authroity

#### Training (see also 2.8)

- Financial assistance for Nowcasting Training Course, Romania, September 2010
- Financial assistance for 2<sup>nd</sup> SDS-WAS Training Workshop in Antalya, Turkey, 21 to 25 November
- Financial assistance for 5<sup>th</sup> International Verifications Methods Workshop, Melbourne, Australia, 1 to 7 December 2011
- Seminar on Valorisation of Climate Data, Mauritania, 6 to 9 December 2010

#### VCP Management (Website Update, Brochure, Communication-Visibility Actions)

Printing of VCP folders and factsheets

#### 2.2 Emergency Assistance (in combination with Emergency Assistance Fund)

Country	Description	Donor
Haiti	Expert support: Consultant services and financial support towards travel costs	Emergency Assistance Fund
Pakistan	Expert support: Meeting on Pakistan Floods	Emergency Assistance Fund
Myanmar	Expert support: Training on Multi-Functional Transport Satellite (MTSAT), Naypyidaw, Myanmar, 5-10 December 2011	Emergency Assistance Fund

Full details for Emergency Assistance Fund expenditure are provided in Appendix 1.

#### 2.3 VCP- F Expenditure for 2011

Full details on VCP-F expenditure for 2011 are provided in **Appendix 2 and 3** and summarized in **Table 2** below. **Table 3** indicates expenditure trends over the period 2007 to 2011.

Table	Table 2 - VCP (F) Activities Supported in 2011 (incl. requisitions)									
1	Expert services	61,819								
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Improvement of GTS Africa	79					
Improvement of GTS South America						
Improvement of GTS South-East RA VI						
Improvement of GTS Central & Eastern Euro		3,238				
Improvement of upper-air observing systems	22,643	28,688				
Upper-air stations & GCOS	7,230		18,851			
Improvement of GDPS						
Agricultural meteorology activities						
Support to CLICOM & climatological activities		4,490	38,472	62,774		
Mitigation of natural disasters						
Emergency disaster assistance	101,553			218,741		
ACMAD						
EAMAC	585					
Operational hydrology activities	79					
Improvement of satellite reception						
Internet capabilities		13,916	6,257	11,815	9	
Long-term fellowships	1,682			4,233	29	
Support to LDCs	50,000					
Public Weather Services				25,276		
Training activities by ETR	1,229					
VCP Management			17,288	29,006	10	
Total	307,210	341,696	564,173	535,671	274	

#### 2.4 VCP (ES) Coordinated

In 2011, **seven donor Members** offered equipment and / or expert services within the framework of the VCP Equipment and Services Programme (VCP-ES) including for outstanding requests carried over from previous years. In total **40 new project requests** were received in 2011 (**Appendix 4**), out of which **30** could not be supported from VCP-F. These were posted to the web and circulated among the potential donors and VCP members. In total, **25 projects were supported through VCP (ES) Coordinated** in 2011 (Table 4).

Project requests were mainly aimed at strengthening surface observing stations, strengthening communications systems, and improving meteorological applications. Some requests concerning TV weather presentation and expert services for legislative purposes were also received.

VCP Management Activities focused in 2011 on retirement and / or supporting outstanding VCP requests and discussions with Scientific Programmes and Regional Offices concerned in order to support valid projects using the VCP (F) and close requests that are no more valid. In the end of the year 2011 19 VCP requests remained unmet in the system (including 10 requests from 2011).

	Та	ble 4 - VCP Coordinated Projec	cts supported in 2011	
	Members support			
	Requesting Country	Focus	Supporting country	Amount (estimates)
1	Pakistan	Restoration of ten automatic weather stations in flood affected areas	Finland	USD 150,000.00
2	Pakistan	Restoration of ten meteorological observatories in flood affected areas	China	USD 70,000
3	Sudan	Radiosonde transmitters and balloons	Switzerland (GCOS)	USD 75,000
4	Mauritius	Provision of 400 radiosondes for wind, temperature and humidity observations in the South West Indian Ocean	Switzerland (GCOS)	USD 50,000
5	United Republic of Tanzania	Acquisition of sondes for observation of upper air information of weather and climate at Dar es Salaam	Switzerland (GCOS)	USD 75,000
6	Moldova	Completion of the Hydrologist- Forecaster Automated Workstation Project	Russian federation	Unknown
7	Sri Lanka	Balloons for the CINDY/DYNAMO field experience	Japan and Totex	USD 21,000

	Та	able 4 - VCP Coordinated Project	cts supported in 2011	
	Members support			
	Requesting Country	Focus	Supporting country	Amount (estimates)
8	Democratic Republic of Congo	Rehabilitation of three meteorological stations	Netherlands (GCOS)	USD 200,000
9	Zambia	Telecommunications equipment	Netherlands (GCOS)	USD 70,000
10	Cook Islands	Radiosondes at Ratoronga	Japan (GCOS)	Unknown
11	Cook Islands	Renovation of two GSN stations	Japan (GCOS)	Unknown
12	Bangladesh	Engineering services for migration of data exchange code to the table Driven Code Format as well as system maintenance	Japan and Oriental Electronics, Inc.	Unknown
13	Uruguay	5 mercurial barometers	Germany	USD 500
14	Ecuador	5 mercurial barometers	Germany	USD 500
15	Cuba	10 mercurial barometers	Germany	USD 1000
16	Panama	3 mercurial barometers	Germany	USD 300
17	Peru	5 mercurial barometers	Germany	USD 500
18	Honduras	4 mercurial barometers	Germany	USD 400
19	Bolivia	4 mercurial barometers	Germany	USD 400
20	Dominican Republic	5 mercurial barometers	Germany	USD 500
21	Colombia	6 mercurial barometers	Germany	USD 600
22	Argentina	5 mercurial barometers	Germany	USD 500
23	Costa Rica	1 mercurial barometer	Germany	USD 100
24	Paraguay	5 mercurial barometers	Germany	USD 500
25	Nigeria	BSRN Station Ilorin	Germany (GCOS)	USD 35,000

#### 2.5 WMO Voluntary Cooperation Programme – 2011 Financial Contributions

The total Members' contributions to the WMO Voluntary Co-operation Programme in 2011 are shown in **Table 5** in terms of VCP(ES) and VCP(F) and reported bi-lateral support.

In 2011, 6 Members (Australia, China, Japan, Korea, Maldives and Mauritius) made cash contributions to the VCP Fund (VCP(F)), amounting to approximately **USD 148,678** while USD **1,788,084** and equivalent support was provided to VCP Coordinated Projects through WMO and some **USD 24,951,779** equivalent through bi-lateral arrangements for a total investment of **USD 26,888,541**.

Regarding reported bi-lateral figures are of course very indicative. There are some difficulties with representing "Reported" figures and it is likely that not all IPM members have reported similar activities under this section.

	VCP(F)	VCP(ES)	Bi-L	ateral	Total
Member	` '	Equipment	As Re	ported	
		and Services through WMO	Equip & Services	Fellowships & Training	
Argentina		WWO	41,500	27,714	69,214
Australia	51,773.63			9,226	7,611,000
Canada	· · · · · · · · · · · · · · · · · · ·		493,700	53,000	546,700
China	10,000.00	107,754	1,411,500	769,530	2,298,784
Hong Kong				35,000	35,000
Finland		150,000	2,25	0,000	2,400,000
France			395,349	659,186	1,054,535
Germany		40,800	1,77	7,911	1,78,711
Japan	54,230	608,663	unk	nown	662,893
Maldives	1,000.00				1,000
Mauritius	1,674.11				1,674
Netherlands		270,000			270,000
New Zealand			1,90	6,817	1,906,817
Republic of Korea	30,000.00		1,240,000	415,094	1,685,094
Russia					unknown
Spain			2,600,000		2,600,000
Switzerland		200,000	188,500		388,500
UK			1,448	,619.10	1,448,619.10
USA		410,867	1,67	9,133	2,090,000
Total	148,678	1,788,084	24,9	51,779	26,888,541

#### 2.6.1 Additional Member Support through WMO

Several Members provide additional financial support to Technical Cooperation activities:

• Spain continued to finance the activities of the "Program of Cooperation for Ibero American NMHSs" and the activities of "West Africa Cooperation Program".

- Norway provided funding for a multi-year regional project in Africa for strategy development and capacity building for improved weather and climate services
- Japan opened a new trust fund for Global Frameworks in order to facilitate the financial contribution of JMA to a broad range of WMO programmes and projects that support the
- establishment, implementation and strengthening of all components of the Global Framework for Climate Services, including disaster prevention, agriculture, and water resource management in the world.
- USA also operates and individual Trust Fund that supports a range of Technical Cooperation Activities through WMO technical Departments and direct assistance to countries.

#### 2.7 Trends in Contributions to WMO VCP Programme

The trends in contributions to VCP(F) over the past six years indicate a fairly constant support of the VCP(F) and of VCP ES through the WMO (Table 6). This is illustrated below in Figure 1.

Overall in any given year, four to five countries account for over 90% of the VCP-Funds contribution as illustrated in Table 6 below. This poses the risk of over reliance on a small number of donors, which may impact on overall delivery objectives for VCP. An increased participation from other countries to diversify the base of the programme is highly desirable.

However, this is compensated to an extent by the very positive move towards support by members for major development programmes and a generally increasing trend in other technical cooperation trust funds.

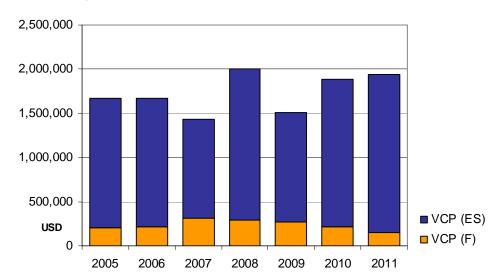
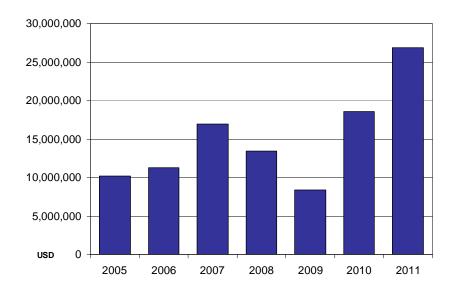


Figure 1. Contributions to VCP (F&ES) 2005 – 2011

Figure 2. Total reported investment (VCP (F&ES) and bilateral activities) 2005 -2011



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Table 6 - VCP-F and VCP Financing 2007 to 2011

		2011			2010			2009			2008			2007	
Donor	VCP(F)	VCP(ES)	Total												
Member		Equipment & Services Through WMO			Equipment & Services through WMO	- - -									
Australia	51,774		51,774	41,731		41,731	50,000	147,700	197,700	50,000	87,000	137,000	50,000	238,350	288,350
China	10,000	107,754	117,754	10,000	27,000	37,000	10,000		10,000	37,000	47,148	20,000	10,000		10,000
Finland		150,000	150,000					7,343	7,343						
France								4,479	4,479						
Germany		40,800	40,800											14,800.00	14,800.00
Ireland							9,555		9,555	8,760		8,760	7,500		7,500
Italy														160,000	160,000
Japan	54,230	608,663	662,893	128,000	514,300	642,300	91,000	105,000	196,000	106,000	22,000	128,000	178,000	17,000	195,000
Kenya													9,792		9,792
Kingdom of Saudi Arabia											13,579	13,579			
Maldives	1,000		1,000	1,000		1,000	10,000		10,000	1,000		1,000	1,000		1,000
Mauritius	1,674		1,674	1,537		1,537	1,460		1,460	2,685		2,685		160,000	160,000
Myanmar				486		486				972		972	178,000	17,000	195,000
Netherlands		270,000	270,000		133,620	133,620									
Norway							70,000		70,000	54,852		54,852	50,000		50,000
Pakistan										978		978	499		499
Republic of Korea	30,000		30,000	30,000		30,000	27,700		27,700	27,500		27,500	10,000	100,000	110,000
Russian Federation					40,000	40,000					10,000	10,000			
Spain					53,448	53,448		243,500	243,500		443,312	443,312		331,000	331,000
Switzerland		200,000	200,000		53,448	53,448		9,734	9,734						
UK					38,701	38,701		71,000	71,000					19,000	19,000
USA		410,867	410,867		812,606	812,606		654,912	654,912		1,096,180	1,096,180		230,000	230,000
Total	148,678	1,788,084	1,936,762	212,754	1,673,123	1,885,877	269,715	1,243,668	1,513,383	289,747	1,719,219	1,944,818	317,791	1,110,150	1,426,941

#### 2.8 Education and Training Fellowship Activities

#### 2.8.1 Training

VCP(F) funds continue to be used to support very short-term training activities offered by WMO RTCs and Member countries in areas such as WMO Information System (WIS), tropical cyclones, agricultural meteorology, aeronautical meteorology, climate analysis and applications, numerical weather prediction, weather modification, and climate prediction. In 2011, 45 participants from 33 countries were supported to attend 18 courses and workshops; and USD 94,930 was used.

Event Title	<b>Countries Supported</b>	Nr. of Participants	VCP (F) (USD)
TDCF-Climsoft Training, Antananarivo, Madagascar, 10 to 22 January 2011	Kenya (Expert)	1	5,146
RA IV workshop on Hurricane forecasting and Warning and Public Weather Services, Miami, Florida, USA, 21 March to 1 April 2011	Fiji	1	3,693
Course on Methods for Short-term Climate Prediction, Nanjing and Beijing, China, 28 March to 8 April 2011	Uzbekistan	1	1,810
NOAA 2011 Direct Readout Conference, Miami, Florida, 4 to 8 April 2011	Costa Rica	1	2,073
Course on Satellite Meteorology, Nanjing, China, 18 to 29 April 2011	Maldives, Kazakhstan, Kyrgyzstan	3	6,329
Advanced Workshop on Climate Change and Agriculture, RTC Bet Dagan, Israel, 13 to 27 June 2011	Burundi, Kenya, Viet Nam, Ukraine, Sri Lanka	5	7,277
Course on Weather Modification, Beijing, China, 22 August to 02 September 2011	Pakistan, Ecuador, Kyrgyzstan, Hungary	4	7,111
9th Southern Hemisphere TC on Tropical Cyclones and Workshop on PWS, Melbourne, Australia, 5 to 23 September 2011	Fiji (Expert)	1	5,922
UNITAR e-Learning Course on Climate Change Diplomacy, 12 September 15 November 2011	Seychelles	1	744
Course on Basics of Numerical Weather Prediction and Practices, Alanya, Turkey, 26 to 30 September 2011	Kenya	1	1,855
International Training Course on Dust Storms, Tehran, Islamic Republic of Iran, 10 to 13 October 2011	Spain (Expert)	1	2,529
Course on Climate Analysis and Applications, Alanya, Turkey, 10 to 19 October 2011	Germany (Expert), Spain (Expert), Tanzania, Peru, Kenya	5	8,517
Course on Agrometeorology, Nanjing, China, 17 October to 4 November 2011	DPR Korea (2), Laos (Expert), Thailand (Expert), Jordan (Expert), Tajikistan (Expert)	6	8,517
Workshop on Competency Standards for Aeronautical Meteorological Personnel, New Delhi, India, 31 October to 4 November 2011	South Africa, Australia (Expert)	2	4,659

Course on Weather Modification, Nanjing, China, 14 to 25 November 2011	Philippines (Expert), Uzbekistan (Expert)	2	3,795
Workshop on Implementing Competency Assessment for Aeronautical Meteorological Personnel, Hong Kong, China, 5 to 9 December 2011	Samoa, Kiribati, Canada (Expert), Cook Islands, Solomon Islands (Expert)	5	18,033
Course on Tropical Cyclones, Nanjing, China, 5 to 16 December 2011	DPR Korea, Philippines, Kenya, Ethiopia	4	5,726
Course on WMO Information System (WIS) in Tehran, Iran, 10 to 24 December 2011	India (Expert)	1	1,194
TOTAL		45	94,930

**Table 1**: Training events and participants supported using the VCP(F) in 2011

NMHSs in Hong Kong China, the Islamic Republic of Iran, the People's Republic of China, Turkey, the United Kingdom of Great Britian and Northern Ireland, and the United States of America assisted Members by developing and running the above workshops. Other Members such as Canada, Finland, France, Germany and Switzerland have provided training opportunities to staff from Member countries without requesting assistance from the WMO Secretariat.

#### 2.8.2 Fellowships

During 2011, the VCP arrangement with partners enabled WMO to provide a total of 30 fellowships from 24 countries to participate in short term training. In particular, the provision of VCP Fund from USA allowed WMO to facilitate the training of 29 experts from 23 countries at National Oceanic and Atmospheric Administration (NOAA). The training took the form of on-the-job training at African Desk, South American and Tropical Desk or National Hurricane Center and has provided not only hands-on learning experience on the day-to-day operation at NOAA, but also opportunities for the fellows to establish the professional network. This kind of network would go a long way in fulfilling the purposes of WMO regarding international collaboration in the area of weather, climate and water. This unique experience has shown that short term training through attachment is effective and should be further encouraged for experts from the NMHSs of developing countries, particularly LDCs and SIDSs. Support through VCP is desirable, so as to reduce the burden on regular budget, which is normally targeted at long term training.

Beneficiary	2011	Budget (USD)	Fund
Antigua and Barbuda	1	3,179	USA VCP
Argentina	1	6,428	USA VCP
Bahamas, The	1	6,428	USA VCP
Bolivia	1	6,428	USA VCP
Brazil	1	6,428	USA VCP
Chile	1	6,428	USA VCP
Djibouti	1	9,345	USA VCP
Dominican Republic	2	6,327	USA VCP
Egypt	2	13,256	USA VCP
Guinea	1	6,628	USA VCP
Guinea Bissau	1	8,970	USA VCP
Kenya	1	8,433	USA VCP
Lesotho	2	3,183	VCP(F)
Liberia	1	10,748	USA VCP
Lithuania	1	7,287	VCP(F)
Mali	1	10,961	USA VCP
Mexico	2	12,856	USA VCP
Nigeria	3	27,546	USA VCP
Paraguay	1	6,428	USA VCP
Peru	1	6,428	USA VCP
Saint Lucia	1	6,428	USA VCP
Sao Tomé	1	4,578	VCP(F)
Senegal	1	8,375	USA VCP
Trinidad	1	6,428	USA VCP
Tunisia	1	7,780	USA VCP
Uganda	1	14,900	VCP(F)
Uruguay	1	6,428	USA VCP
TOTAL	30	200,232	
USA VCP	29	198,683	
VCP (F)	5	29,948	

**Table 2**: The number of WMO short term fellows supported by the VCP Fund by beneficiary and the total budget corresponding to each beneficiary in 2011.

The number of fellows shown in Table 3 includes 10 fellows who have commenced their training in China in 2011, and 8 fellows who have started their degree programme in Russia in the same year under bilateral arrangements between the People's Republic of China and WMO, and also between Russia respectively. Although the resources from these countries are not paid directly into WMO account, the terms of the arrangement allows WMO to train fellows at reduced cost, compared to if such agreements do not exist. The UK Met Office contributed towards support for five fellows undertaking study in the United Kingdom and the Australian Bureau of Meteorology has contributed towards the costs of students undertaking study in Australia.

It is expected that partners that provided resources through VCP in past years will maintain the same level of support during 2012.

COUNTRY	2011	COUNTRY	2011	COUNTRY	2011
Antigua & Barbuda	1	Ecuador	1	Papua New Guinea	1
Argentina	1	Fiji	1	Rwanda	1
Belize	1	Gabon	1	Samoa	3
Benin	1	Gambia	2	Sierra Leone	2
Bhutan	1	Ghana	1	Solomon Islands	1
Bolivia	2	Jamaica	2	Sri Lanka	1
Botswana	1	Iraq	1	Swaziland	1
Brunei	1	Kiribati	1	Tajikistan	1
Burkina Faso	2	Lesotho	1	Togo	1
Cameroon	1	Lithuania	1	Trinidad & Tobago	1
Cape Verde	1	Malawi	1	Uganda	1
Cayman Island	1	Mali	1	Uzbekistan	2
Central African Republic	1	Moldova	1	Vanuatu	2
Comoros	1	Mozambique	1	Zimbabwe	2
Congo, DR	2	Myanmar	1	TOTAL	59
Côte d'Ivoire	3	Pakistan	1	_	

**Table 3**: The number of WMO fellows supported by the regular budget by beneficiary in 2011

For reference, Table 3 shows fellows supported by the WMO regular budget and bilateral arrangements. A total of 62 new fellows from 47 countries have undergone their fellowship programme during 2011.

#### 2.9 Enhancement of VCP Coordination

RMO has been able to secure one new associate to support resource mobilization and capacity development activities: Mr Wayne Elliott joined the DRA department in September as a seconded expert from the UK Met Office.

20 March 2012

#### Appendix 1



World Meteorological Organization Organisation météorologique mondiale Secrétariat

7 bis, avenue de la Paix – Case postale 2300 – CH 1211 Genève 2 – Suisse Tél.: +41 (0) 22 730 81 11 – Fax: +41 (0) 22 730 81 81 wmo@wmo.int – www.wmo.int

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#### Fund No. 420510 - Emergency Assistance Fund

Interim Statement of Income and Expenditure For the period 1 January to 31 December 2011 Amounts expressed in US dollars

1.	Balance of fund at 1 January 2011				
2.	Income: 2.1 Transfer from VCP Fund (from Japan's contribution) 10,846 2.2 Interest credited 2.3 Unrealized gain on differences on exchange* 2.4 Total income 10,846 2.5 Associated 2.6 Associated 2.7 Total income	15,915			
3.	Total funds available for the period	194,088			
4.	Expenditure:	33,393			
5.	Balance at 31 December 2011	160,695			

\* WMO's functional currency is the Swiss Franc. Accordingly, funds received in other currencies are converted to Swiss Francs at the United Nations Operational Rate of Exchange (UNORE) in force on the day of receipt. UNORE's are revised at the beginning of every month. During the monthly accounting closure, fund account balances (in Swiss Francs) are translated to applicable donor reporting currencies based on UNOREs in force at the end of the month to facilitate reporting to donors. Because UNOREs fluctuate, balances of funds that have reporting currencies that are different from the Swiss Franc (foreign currency) also fluctuate even though the amounts in Swiss Francs do no change. The "Unrealized gain on differences in exchange" reflects the appreciation of the Swiss Franc against the reporting currency of the Trust Fund.

Certified correct:

Luckson Newira ( Chief, Finance Division 27 February 2012



Secrétariat

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# Fund 420110 - Voluntary Co-operation Fund (F) Interim Statement of Income and Expenditure For the period 1 January to 31 December 2011 Amounts expressed in USD

1. Balance of fund at 1 January 2011				
Income:     2.1 Contributions     2.2 Interest income     3.3 Unrealized gain on differences in exchange*	Annex1	148,678 3,713 8,344		
2.4 Total income	°=		160,735	
3. Total available funds during reporting period			1,033,841	
4. Expenditure: 4.1 Direct project costs: 4.2 Indirect project costs	Annex 1	274,049 569		
4.3 Total project expenditure			274,618	
5. Balance of fund at 31 December 2011				

<sup>\*</sup> WMO's functional currency is the Swiss Franc. Accordingly, funds received in other currencies are converted to Swiss Francs at the United Nations Operational Rate of Exchange (UNORE) in force on the day of receipt. UNORE's are revised at the beginning of every month. During the monthly accounting closure, fund account balances (in Swiss Francs) are translated to applicable donor reporting currencies based on UNOREs in force at the end of the month to facilitate reporting to donors. Because UNOREs fluctuate, balances of funds that have reporting currencies that are different from the Swiss Franc (foreign currency) also fluctuate even though the amounts in Swiss Francs do no change. The "Unrealized gain on differences in exchange" reflects the appreciation of the Swiss Franc against the reporting currency of the Trust Fund.

Certified correct:

Luckson Ngwira Chief, Finance Division 28 February 2012

### Fund No. 420110 Voluntary Co-operation Fund (F) Interim Contributions and Expenditures for the period 1 January to 31 December 2011 amounts expressed in US dollars

1.	Control 1.1 1.2 1.3 1.4 1.5 1.6 1.7	ributions Australia China Japan Korea Maldives Mauritius Total contributions	51,774 10,000 54,230 30,000 1,000 1,674 148,678
2.	Expe	enditure	
	2.1	Direct project costs 2.1.1 Travel 2.1.2 Training and fellowships 2.1.3 Equipment 2.1.4 Meetings 2.1.5 Public information 2.1.6 Other 2.1.7 Consultants 2.1.8 Software 2.1.9 Total direct costs	107,481 80,192 37,670 15,421 12,006 11,937 6,841 2,501 274,049
	2.2	Indirect project costs 2.2.1 Bank charges 2.2.2 Other adjustments 2.2.3 Total indirect costs	378 191 569
	2.3	Total project expenditure	274,618

#### Appendix 3

#### VCP (F) Activities Supported in 2011

Due to the currency exchange rates the amounts presented here do not correspond exactly with the official figures presented in the Appendix 2

	VCP (F) Activities Supported in 2011	USD
1	Expert Services	61,819
	Expert Mission in Seychelles for the Installation of 2 Automatic Weather Stations	5,700
	Expert Mission in Suriname to diagnose a EEC Weather Radar Type WR100-5, Paramaribo, Suriname, 14-18 February 2011	6,847
	WMO fact-finding mission to the State Hydrometeorological Administration (SHMA), Pyongyang, DPRK, 18-25 March 2011	4,684
	Expert mission to the Bangladesh Meteorological Department for the migration to TCDF on the GTS/Message Switching System, Dhaka, Bangladesh, 8-15 May 2011	15,074
	Expert services for the Implementation of Quality Management System in Colombia	4,862
	Review of Vanuatu Meteorological Act	13,452
	Development of Niue Meteorological Legislation	11,200
2	Fellowships and training activities	152,653
	TDCF-Climsoft Training, Antananarivo, Madagascar, 10 to 22 January 2011	5,146
	Workshop on Hurricane forecasting and Warning and Public Weather Services, Miami, Florida, USA, 21 March to 1 April 2011	3,693
	Course on Methods for Short-term Climate Prediction, Nanjing and Beijing, China, 28 March to 8 April 2011	1,810
	NOAA 2011 Direct Readout Conference, Miami, Florida, 4 to 8 April 2011	2,073
	9th Southern Hemisphere TC on Tropical Cyclones and Workshop on PWS, Melbourne, Australia, 5 to 23 September 2011	5,922
	Course on Satellite Meteorology, Nanjing, China, 18 to 29 April 2011	6,329
	Advanced Workshop on Climate Change and Agriculture, RTC Bet Dagan, Israel, 13 to 27 June 2011	7,277
	Course on Weather Modification, Beijing, China, 22 August to 2 September 2011	7,111
	UNITAR e-Learning Course on Climate Change Diplomacy, 12 September 15 November 2011	744
	Course on Basics of Numerical Weather Prediction and Practices, Alanya, Turkey, 26 to 30 September 2011	1,855
	International Training Course on Dust Storms, Tehran, Islamic Republic of Iran, 10 to 13 October 2011	2,529
	Course on Climate Analysis and Applications, Alanya, Turkey, 10 to 19 October 2011	8,517
	Course on Agrometeorology, Nanjing, China, 17 October to 4 November 2011	8,517
	Workshop on Competency Standards for Aeronautical Meteorological Personnel, New Delhi, India, 31 October to 4 November 2011	4,659
	Course on Weather Modification, Nanjing, China, 14 to 25 November 2011	3,795
	Workshop on Implementing Competency Assessment for Aeronautical Meteorological Personnel, Hong Kong, China, 5 to 9 December 2011	18,033

	Course on Tropical Cyclones, Nanjing, China, 5 to 16 December 2011	5,726
	Course on WMO Information System (WIS) in Tehran, Iran, 10 to 24 December 2011	1,194
	Ms. V. GRUSAITE from Lithuania to pursue a 6 months course at the Norwegian Meteorological Institute, from 1 September 2011 to 29 February 2012	7,287
	Mr Samuel SENKUNDA from Uganda to study Postgraduate Meteorology at University of Nairobi	14,900
	Fellowships: Lesotho	3,183
	Travel cost for Mr Jose Luis ONOFRE from Sao Tomé in order to obtain a visa for MSc studies	4,578
	Financial assistance for Nowcasting Training Course, Romania, September 2010	2,667
	Financial assistance for 2 <sup>nd</sup> SDS-WAS Training Workshop in Antalya, Turkey, 21 to 25 November 2011	12,255
	Financial assistance for 5 <sup>th</sup> International Verifications Methods Workshop, Melbourne, Australia, 1 to 7 December 2011	12,255
	Seminar on Valorisation of Climate Data, Mauritania, 6 to 9 December 2010	598
3	VCP Spares/shipping of equipment	39,076
	Acquisition of winch for tilting device and freight charges for Seychelles	1,430
	Purchase of software for transmission of meteorological data in Haiti	2,532
	Emergency Telecommunications System for Samoa	20,500
	Upgrade of Cook Islands Regional Basic Synoptic Network	5,000
	Provision of Hydrogen generator for Guinea, Conakry	10,215
	Other	434
4	Internet connection services	9,763
	Provision of Internet Connection for Guinea Bissau	3,643
	Internet connection services for Afghanistan Meteorological Authority	5,537
	Other	583
5	VCP Management (Website Update, Brochure, Communication-Visibility Actions)	10,979
	Printing of VCP folders and factsheets	10,410
	Indirect project costs (Bank charges etc.)	569
	TOTAL	274,290

### Appendix 4

VCP requests received in 2011				
COUNTRY	INDICATOR	PROJECT TITLE	REQUESTED ITEMS	
ARGENTINA	AR/2011/OB/2/2/1	Provision of Hg barometers	5 mercurial barometers	
ARMENIA	AM/2011/OB/2/2/5	Provision of hydrometeorological thermometers	Mercury thermometers for measuring maximum air temperature (TM-1) 30 pcs, Thermometers (alcohol) for measuring minimum air temperature (TM-2) 60 pcs, Mercury thermometers for measurement of soil temperature at depth and to measure the surface temperature of water in reservoirs (the Russian equivalent of the TM-10) 30 pcs, mercury thermometers for meteorological measurements of water temperature in water reservoirs (the Russian equivalent of the TM-4) 40 pcs	
BANGLADESH	BD/2011/TE/EX/2	Feasibility investigations for the future projects of BMD - Expert mission	Qualified experts for seven working days	
BANGLADESH	BD/2011/TE/EX/1	TDCF migration - Expert mission	Qualified experts of GTS for about 10 working days	
BOLIVIA	BO/2011/OB/2/2/1	Provision of Hg barometers	4 mercurial barometers	
CAPE VERDE	CV/2011/TE/4/1/1	Data acquisition and transmission	MESSIR_COMM, site installation and commissioning, shipping/handling, airfreight, insurance, site training, documentation set for operations and maintenance	
COLOMBIA	CO/2011/OB/2/2/1	Provision of Hg barometers	6 mercurial barometers	
COLOMBIA	CO/2011/AEM/EX/1	Implementation of a quality management system for the provision of meteorological services for aviation: diagnosis and recommendations for improvement and strengthening	Expert services (DSA and flights)	
COMOROS	KM/2011/WCP/2/2/1	Provision of data processing system	Data processing system	
COSTA RICA	CR/2011/OB/2/2/2	Provision of Hg barometers	1 mercurial barometer	
COSTA RICA	CR/2011/STS/1	Participation to the Satellite direct readout conference	Travel costs	
CUBA	CU/2011/OB/2/2/1	Provision of Hg barometers	10 mercurial barometers	
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	KP/2011/AG/2/2/1	Improving agro-meteorological services in DPRK	Four automatic weather stations Training of personnel in developing and disseminating agro-meteorological services	
DEMOCRATIC REPUBLIC OF THE CONGO	CD/2011/OB/2/3/1	Rehabilitation of three meteorological stations	Rehabilitation of three meteorological stations, telecommunication upgrade, training	
DOMINICAN REPUBLIC	DO/2011/OB/2/2/1	Provision of Hg barometers	5 mercurial barometers	
ECUADOR	UY/2011/OB/2/2/1	Provision of Hg barometers	5 mercurial barometers	

ЕТНІОРІА	ET/2011/PWS/1/1/2	Upgrading and strengthening of the Public Weather Services presentation	Studio equipment, Production control, Video Tape Recording, Monitoring, Intercom and Talkback System, Control Desks, Non-linear Editing, Archive, Installation Material
FIJI	FJ/2011/STS/1	Financial support for participation to the Southern Hemisphere Course on TCs and PWS Workshop	Travel costs
HONDURAS	HN/2011/OB/2/2/1	Provision of Hg barometers	4 mercurial barometers
MALI	ML/2011/PWS/1/1/2	Strengthen the capacity of the DNM to ensure a better presentation of weather forecasts on TV	Equipment, software, education of the personnel
MAURITIUS	MU/2011/OB/1/2/6	Provision of 400 radiosondes for wind, temperature and humidity observations in the South West Indian Ocean	400 radiosondes
MYANMAR	MM/2011/OB/EX/1	Expert mission for the training on MTSAT data utilization	Travel, per diem
NIUE	NU/2011/OB/2/6/1	Repair and upgrade of MCCD HQ building to cyclone proof standard	Building repair and upgrade
PAKISTAN	PK/2011/OB/2/2/1	Restoration of ten meteorological observatories in flood affected areas	Meteorological instruments
PAKISTAN	PK/2011/OB/2/3/1	Restoration of ten automatic weather stations in flood affected areas	Ten automatic weather stations
PANAMA	PA/2011/OB/2/2/2	Provision of Hg barometers	3 mercurial barometers
PARAGUAY	PY/2011/OB/2/2/1	Provision of Hg barometers	5 mercurial barometers
PERU	PE/2011/OB/2/2/1	Provision of Hg barometers	5 mercurial barometers
REPUBLIC OF CONGO	CG/2011/WCP/2/2/2	Migration to BUFR Table- Driven Code Forms	Acquisition of hardware and software for the creation of a system for the receiving, processing and dissemination of meteorological information
REPUBLIC OF MOLDOVA	MD/2011/HY/4/2	Completion of the Hydrologist- Forecaster Automated Workstation project	MITRA-GIS computer and telecommunications complex, updating the existing software products and the expansion of the existing list of GIS Meteo components
SAMOA	WS/2011/TE/1/1/1	Emergency telecommunications system	Telecommunication equipment, cabling and labor, computer desktop, computer laptop
SOLOMON ISLANDS	SB/2011/TE/5/3/2	Upgrading of the Meteorology Division Internet Facility	Server, firewall, switch, network printer, photocopier, internet service upgrade, 2 desktop computers, 3 UPS, installation
SOLOMON ISLANDS	SB/2011/TE/1/1/2	Improving the communication systems between the Meteorology Division's Communication Center and the Weather Observing Stations	6 remote/digital HF radio systems and installation
SOLOMON ISLANDS	SB/2011/AEM/EX	Initial external auditing of the Meteorology Division's Quality Management System for Aviation Services	Travel and DSA

SRI LANKA	LK/2011/OB/1/2/9	Balloons for the CINDY/DYNAMO field experience	Balloons
SUDAN	SD/2011/OB/1/2/16	Radiosonde transmitters and balloons	400 balloons and 400 RS92
SURINAME	SR/2011/OB/3/2/1	Transformation from WAFS Satellite to WAFS Internet Reception	Hardware, software, services
TONGA	TO/2011/PWS/EX/1	Drafting a Meteorology Bill	Expert services and travel
UNITED REPUBLIC OF TANZANIA	TZ/2011/OB/1/2/6	Acquisition of sondes for observation of upper air information of weather and climate at Dar es Salaam	Radiosondes
URUGUAY	EC/2011/OB/2/2/2	Provision of Hg barometers	5 mercurial barometers

#### Annex IV

INFORMAL PLANNING MEETING OF THE VOLUNTARY COOPERATION PROGRAMME

MEXICO CITY, MEXICO 6- 7MARCH 2012 ITEM:3.2

Original: ENGLISH

#### **REPORTED BILATERAL TECHNICAL COOPERATION ACTIVITIES IN 2011**

(Submitted by WMO Members)

#### Summary and Purpose of Document

This document provides information on Member bilateral cooperation activities during 2011 including VCP Coordinated Programmes.

#### **ARGENTINA**

In 2010 and 2011, Argentina continued its activities as a donor to the Spanish-speaking Countries of Regions III and IV.

Donor	VCP	VCP (ES)		Total	
Member	(F)(US\$)	E & S through WMO	E & S bilateral arrangements	Training / Fellowships	Contribution (US\$)
Argentina			41,500.00	27,714.00	47,648.00

### The following co-operation activities were carried out:

- Standard calibration and instruments repair, for Regional III and IV Members, by Regional Instrumental Centre (RIC) in Buenos Aires.
- In December 2011, 3 experts of Paraguay realized Instrumental Calibrations for a week in the Regional Instrumental Centre (RIC).
- Course/ Training Workshop on Seasonal Prediction Statistics. Participated: Brasil, Uruguay, Chile, Bolivia, and Paraguay. 27 -30 September 2011. Buenos Aires – Argentina. U\$S 6,000.00
- XXXIV Regional Climate Forum for the South and South East of South America.
   Participated: Brasil, Uruguay, Chile, Bolivia, and Paraguay. 26 September 2011.
   Buenos Aires Argentina. OMM-U\$\$ 5,000.00
- WMO/RAIII Espectrophotometer Dobson and UV Radiometer Intercomparison. Nov 15-Dic 3 2010. Buenos Aires – Argentina. OMM-U\$\$ 41.500

#### Missions by Argentine experts to other NMHSs:

- WMO Water Resources and Environmental Management WATENV. Leibniz University Hannover Germany. 2010 2013. Participants: 2
- International General Applied Meteorology Technician Course- 2009-2011- Madrid -España . Participant: 1
- Regional Workshop Initial Guidance System Flash Flood in South America and Symposium GEOSS - 1-4 October 2011. Santiago - Chile. Participants: 2
- VIII Course Ibero-American of Meteorological Satellite. 10 21 October 2011. Santa Cruz de la Sierra Bolivia. Participants: 2
- Course on Generations of Climate Change Sceneries. 25- 28 October 2011. Lima Perú. Participant: 1
- Working Group on Climate Services Regional Association III. 5-7 October 2011.
   Guayaquil Ecuador. Participants: 2
- Regional Workshop on Meteorological Data Relay Aircraft. 8-10 November 2011.
   México D.F- México. Participant: 1
- Eleventh International Comparison Pyrheliometer (CIP-XI) and Regional Comparisons.
   27 September to 15 October 2010. Davos Switzerland. Participant: 1
- V Course on the Use and Interpretation of the Products of the European Centre Model (ECMWF)
- 5 18 September 2010. Cartagena de Indias- Colombia. Participant: 1
- WMO Workshop on Human Resources Development of NMHSS South American Countries and Small Island Developing States. 4 - 8 October 2010. Lima – Perú. Participant: 1

- III Latin American Meeting on Climate Modeling of Time Using the ETA Model, Physical and Numerical Aspects. 25-29 October 2010. Cachoeira Paulista Brasil. Participant: 1
- Internship and short-medium and large term courses at RMTC Buenos Aires, 7 participants from the other countries of RA III attend the following courses ( short, medium and large terms) countries of AR III ( Paraguay, Chile, Brasil, Uruguay, Bolivia, Perú, Cuba, ) attended technical courses offered by Satellite Data and Volcanic Ash, Buenos Aires (NMS Component).
- Granting to local students of password–protected access to value-added products developed by RSMC Buenos Aires which were published on the restricted-access site Internet of the National Meteorological Service (NMS). Through RMTC Buenos Aires, the National Meteorological Service offers the possibility of designing courses intended to be converted into the interactive system, using multimedia, as long as NMS could count on the supportive action of specialists in computing sciences and could receive some training in the design such courses.
  - Into the VCP the National Meteorological Service has received: Surface TEI49C ozone analyzer (TECO) EMPA-Switzerland (Christof Zelgewer) for La Quiaca, approximate cost of the installation 2,106.00 U\$S
  - Dobson Spectrophotometer (total ozone) Japan Meteorological Agency, Japan (Koji Miyagawa) for La Quiaca, during 2012, approximate cost of installation 3,948.00 U\$S.
  - Proton Precision Magnetometer (Geomagnetism) Britsh Geologycal Survey-UK (John Riddik) to Pilar Córdoba Observatory, March 2011. Approximate cost of installation 2,000.00 U\$S.
  - Proton Precision Magnetometer (Geomagnetism) Britsh Geologycal Survey-UK (John Riddik) for Orcadas Antarctic Station, October 2011. Approximate cost of installation 6.250.00 U\$S.
  - Riometers (Ionosphere Measurement) Tokoshoku University of Japan (Dr. Kazuo Makita) to Pilar Córdoba Observatory. In April 2011. Approximate cost of installation 2,500.00 U\$S.

### During 2012 the expected training activities, in RMTC Buenos Aires, are

- Component I National Meteorological Service
  - 1. Surface Meteorological Observers (long term)
  - 2.- Radiosonde Observer (long term)
  - 3.- Forecaster Assistant (long term)
  - 4- Geomagnetism and Space Weather (short term)
  - 5- Geomagnetic Operator (short term)
  - 6.- Introduction to Solar Radiation (short term)

We are hopefully that the contributions reinforce the development during 2012. New activities could be useful to other Members of Region III, and can attract the interest of other Members, particularly training courses on Solar radiation and its energy use, Earth's magnetic field and Space Weather Interaction. We are preparing other courses on the following topics: Hydrology, Agrometeorology and Meteorological Data Management.

- Component II University of Buenos Aires
- First Semester (Mar-July 2012)
- 1.- Satellite Teledetection for Hydrological Balance
- 2.- Atmosphere Modeling
- 3.- Introduction to Climate Modeling
- 4.- Paleo and Neo Climatology
- Second Semester (Aug-Dec- 2012)
- 1.- Large -Scale Atmospheric processes
- 2.- Hydrometeorology

3.- Remote Sensors in Satellite and Principal Applications in Meteorology

#### **AUSTRALIA**

## **Activity Report (all amounts in US\$)**

1. Country: Australia

2. Overall National Contribution in 2011: \$7,611,000

3. Estimated overall national contribution in 2012: \$10,668,800

4. Activities in 2011

## WMO VCP

VCP (F): \$52,500VCP (ES): \$0

Regional Projects(name, duration, scope, national contribution)

• Pacific Islands Climate Prediction Project (PI-CPP)

Duration: 2006 to June 2012

Description: Strengthen Pacific Island Country (PIC) capacity to develop and provide

climate predictions and other climate-related services to the community.

National contribution in 2011: \$945,000

• South Pacific Sea Level and Climate Prediction Project (SPSLCMP)

Duration: 1991 to June 2012

Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.

National contribution in 2011: \$1,025,850

Pacific Adaptation Strategy Assistance Program (PASAP)

Duration: 2009 to June 2012

Description: Enhance country capacity to assess vulnerability to climate change and develop evidence-based adaptation strategies in partner countries in the Pacific and

East Timor.

National contribution in 2011: \$1,050,000

Pacific Climate Change Support Program (PCCSP)

Duration: 2009 to June 2012

Description: Science-based program to assist PIC partners and East

Timorunderstand how their climate and oceans have changed in the past and how

they may change in the future.

National contribution in 2011: \$2,530,500

Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)

Duration: July 2011 to June 2013

Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.

National contribution in 2011: \$1,837,500

Pacific Public Sector Linkages Program (PPSLP) - SWFDDP

Duration: July 2011 to June 2012

Description: Support the secondment of Australian forecasters to the Fiji Meteorological Service, provide severe weather training to meteorological staff in Fiji, Vanuatu, Samoa and Tonga and contribute to the WMO South Pacific Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project (SWFDDP).

National contribution in 2011: \$89,250

Contribution to operation of RANET

Duration: 2008 to 2012+

Description: Contribution to the operation by New Zealand of the Pacific regional

RANET communications hub.

National contribution in 2011: \$10,000

#### **Bilateral Projects**

Professional Meteorologist (WMO Class I) Training for overseas students:

**Duration: Annual** 

Description: Provision of fellowships for overseas students to attend the Bureau of

Meteorology's Diploma of Meteorology course. National contribution in 2011: \$71,000

### 5. Sources of Funding

- VCP (F) funded from the Australian Bureau of Meteorology core budget.
- PI-CPP, SPSLCMP, PCCSP, PASAP, PACCSAP are all funded by the Australian Agency for International Development (AusAID). This mode of funding has increased substantially in recent years and will, amongst other things, represent Australia's main contribution to the regional elements of the Global Framework for Climate Services.
- Projects funded under the PPSLP umbrella are jointly funded by the Bureau (about 10%) and AusAID.
- The training activities and RANET support are funded from the Bureau of Meteorology core budget.

### 6 Challenges in resource mobilization for activities

The main challenge for resource mobilisation relates to those activities funded directly from the Bureau of Meteorology's core budget (e.g. VCP(F), training fellowships, participation in PPSLP), which is under increasing pressure due to Whole of Government efficiency measures. On the other hand, Australia's overseas aid budget continues to grow which is leading to increased opportunities (see below). The changing profile of Australia's contributions is reflected by an overall increase in national contributions (e.g. from \$7.6M in 2011 to \$10.7M in 2012).

Another challenge is the difficulty of securing technical experts to undertake international projects whilst maintaining adequate staffing for existing domestic programs.

## 7. Opportunities for increase in activity

In 2012, PI-CPP and SPSLCMP are to be brought together under the newly-formed *Climate* and *Ocean Services Program for the Pacific (COSPPac)*, which will also include a significant capacity development and communication (outreach) component. COSPPac is an AusAID-funded \$30M, 4-year program of work that will be Australia's main delivery vehicle for assisting Pacific Island Countries to provide climate services.

Also in 2012, tsunami modelling training to Pacific Island Countries will be delivered under the PPSLP program (estimated 2012 contribution \$126,000).

## 8. Opportunities for more cooperation with other members/organizations

Australia currently works closely with regional and national partner organisations, including SPREP, SOPAC and national meteorological services. Australia supports the initiative by SPREP to establish a Pacific Meteorological Desk Partnership at its headquarters in Apia, Samoa, which aims to strengthen institutional arrangements for coordination of meteorological activities in the region and to act as a focal point through which donors, partners and recipients can share information and harmonise their activities.

#### **CANADA**

1. Country	
Canada	
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)
546,700 USD	Canada's goal is to maintain the 2011 national contribution, with two additional initiatives being pursued.
4. List of Activities / Projects / Events in 2011 related to contribution (name, duration, scope)	5. Source of Funding: Environment Canada (USD)
Project 1: Contributions to WMO Trust Funds to engage scientists and technologists from developing countries	
Data Buoy Cooperation Panel (DBCP)	25,000
Aircraft Meteorological Data Relay (AMDAR)	10,000
Brewer Spectrophotometer workshop and calibration	30,000
EC-Panel of Experts on Polar Observations, Research and Services	50,000
Thorpex	50,000
Project 2: Group on Earth Observations	
activities to engage scientists and	
technologists from developing countries	
GEO Secretariat	88,000
GEOSS Cartagena Workshop	15,000
GEO Americas Symposium	25,000

Project 3; Institutional Capacity Development for CNM (Haiti)	
Forecasters rotation to Martinique	37,000
In-kind support Canadian forecasters helping with Haiti	62,700
Maintenance of Haiti Meteorological Services' website	14,000
Project 4; Development of Quality Management Systems for NMHS with emphasis on aviation	
Training for the implementation of QMS for developing countries	23,000
QMS Task Team for WMO	16,000
Translation costs for the QMS implementation guide	11,000
Miscellaneous	
ODA portion of WMO assessed contribution (4%)	90,000
6. Challenges in Resource Mobilization for your Activities / Projects / Events	7. Opportunities for Increased Activity for your Activities / Projects / Events
<ul> <li>Environment Canada does not have a mandate to provide overseas development assistance.</li> <li>Environment Canada's relationship with the Canadian International Development Agency (CIDA) needs to be strengthened</li> <li>Experts may have budget and time constraints</li> <li>Resource mobilization constrained by the Government of Canada's focus on deficit reduction</li> </ul>	Exploring ways to improve our relationship with CIDA. This may include briefing them on capacity development opportunities in the WMO, having the WMO brief them on the files, or having other international development agencies provide background on why they are engaged with the WMO.

# 8. Opportunities for more cooperation with other Members / organizations

We have initiated a process to develop a long term approach to capacity development with

- AgrHymet in Niamey, Niger and
- CNM, Haiti

Environment Canada and the Canadian International Development Agency (CIDA) will investigate potential investments for;

- A project on disaster risk reduction in Southeast Asia; and
- Climate services in the Caribbean to help build upon the proposal by the Caribbean Institute for Meteorology and Hydrology to launch a regional Climate Centre

# CHINA

# Summary of China's Contribution Through WMO VCP Programme and Bilateral Arrangements in 2011

Item		Description of Projects	Project number	Total cost (USD)
1	Study Tour	40 <sup>th</sup> China Study Tour and Regional WIS Training Seminar (China, 11-19 April 2011)		108200
2	Short-term Training	Regional Seminar on Aeronautical Meteorology Service in Asia (11 to 15 April 2011, Beijing)		40000
		International Training Seminar on methods for Short-term Climate Prediction (28 March – 8 April, RTC-Nanjing)		25500
		International Training Course on Satellite Meteorology (18 – 29 April 2011, RTC-Nanjing)		34800
		Training Course on Meteorological Hazards Early Warning for Developing Countries (11 – 31 May 2011, RTC-Nanjing)		95600
		Training Course on Management for Meteorological Officials from Developing Countries (15 June – 5 July 2011, RTC-Nanjing)		96400
		Training course on Climate Change and Climate Information Service for developing Countries (30 August – 19 September 2011, RTC-Nanjing)		126980
		International Training course on Agrometeorology (17 October – 4 November 2011, RTC-Nanjing)		40350
		International Training Course on Weather Modification (14 – 25 November 2011, RTC-Nanjing)		25000
		International Training Course on Tropical Cyclone (5 – 16 December 2011, RTC-Nanjing)		74000
		International Training Course on Weather Modification (Beijing Component of WMO RTC Nanjing, 22 August to 2 September 2011)		33000
		International Training Course on McIDAS-V Software Application to Satellite Meteorology (Beijing Component of WMO RTC Nanjing, 7 to 27 June 2011)		24000
3	Long-term Fellowships	Provision of 3 Doctor degree scholarships to Pakistan covering a period of three years		45700
4	Donation of Instruments and Equipment through VCP	Restoring of ten meteorological observatories in flood affected areas in Pakistan		80754
5	Donation of Instruments and Equipment by Bilateral Arrangements	Donation of 22 sets of Integrated CMACast systems (including CMACast Reception Station, CMA Cast Geosystem, Meteorological Information Comprehensive Analysis and Process System (MICAPS) to the following nineteen countries:  Bangladesh, DPRK, Indonesia, Iran, Kazakstan, Kyrgyzstan, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Tajikistan, Thailand, Uzbekistan, Viet Nam		960300
6	VCP(F)	VCP(F), IPCC Trust Fund, WIS Fund and THORPEX Trust Fund		37000
	Total			2298784

### **Expected Contributions of China to the WMO VCP in 2012-02-28**

# (a) Study Tour

In order to enhance the capacity building in RAI, two China Study Tours will be organized in 2012, namely:

- The 41<sup>st</sup> China Study Tour will be organized for PRs or senior officials mainly from the RAI English-speaking countries in May 2012.
- The 42<sup>nd</sup> China Study Tour will be organized for the participants mainly from RAI French-speaking countries in August 2012.

# (b) Training and Fellowships

- International Training Seminar on Methods for Short-term Climate Prediction (28 March to 8 April 2012, RTC-Nanjing)
- 2. International Training Course on Agrometeorology (10 30 May 2012, RTC-Nanjing)
- 3. International Training Course on Radar Meteorology (11 22 June 2012, RTC-Nanjing)
- 4. 8<sup>th</sup> International Seminar on Climate System and Climate Change (2-13 July 2012, RTC-Nanjing and Beijing Climate Centre)
- 5. Training Course on Climate Change and Climate Information Service for Developing Countries (29 August to 18 September 2012, RTC-Nanjing)
- 6. International Training Course on Weather Forecast (17 28 September 2012, RTC-Nanjing)
- 7. Training Course on Meteorological Hazards Early Warning for Developing Countries (12 October to 1 November 2012, RTC-Nanjing)
- 8. Second International Training course on McIDAS-V Software Application to Satellite Meteorology (June 2012, Beijing Component of RTC-Nanjing)
- 9. International Training Course on Severe Weather Nowcast (August 2012, Beijing Component of RTC-Nanjing)
- 10. International Training course on Regional Drought Monitoring and Prediction and Climate Change Adaptation (September 2012, Beijing Component of RTC-Nanjing)
- International Training course on Application of Meteorological Satellite Data and Products in Weather Forecast and Typhoon Warning (October 2012, Beijing Component of RTC-Nanjing)

In addition, provision of long-term scholarships will continue under the MoU between the Ministry of Education of China and WMO.

#### (c) Donation of Instruments and Equipment

- A pilot project in RA I by donation of Meteorological Information Comprehensive Analysis and Process System (MICAPS) and TV Weather Forecast Producing System to one or two Members in RA I.
- 2. One set of Automatic Weather Station to the Department of Meteorology and Hydrology of Lao People's Democratic Republic
- 3. Five sets of Automatic Weather Stations and one GPSMet station to the Department of Meteorology and Hydrology, Myanmar

### (d) Donation of fund

- 1. USD 100,000 to GFCS Trust Fund
- 2. USD 10,000 to IPCC Trust Fund
- 3. USD 10,000 to WMO Trust Fund for Voluntary Cooperation Program
- 4. USD 12,000 to Wmo THORPEX Fund
- 5. USD 5,000 WMO WIS Trust Fund

# **FINLAND**

1. Country		
Finland		
2. Overall national contribution in 2011 (estimate in USD)		rall estimated national contribution 2 (in USD)
\$2,400,000 (EUR 1,800,000)	\$ 3,100	0,000 (EUR 2,300.000)
4. List of Activities / Projects / Events in 2011 re contribution	elated to	5. Sources of Funding
Peru, Aug 2009 – Apr 2012, Capacity Developmer support modernization of the NMHS of Peru, total		Ministry for Foreign Affairs of Finland
Nepal, Feb 2010 – Dec 2012, Capacity Development support modernization of observation networks and management of NMHS, total 500k€	ent to	Ministry for Foreign Affairs of Finland
Kosovo, Oct 2010 – Oct 2012, Air Quality monitor Central Asia, Aug 2011 – Dec 2013, Regional cocthrough capacity development at the WMO RTC Total 500k€	peration	EU Ministry for Foreign Affairs of Finland
Pacific Island Countries, Jun 2009 – Dec 2011, Communication with end users and strengthening r SPREP in weather and climate, total 500k€	•	Ministry for Foreign Affairs of Finland
Caribbean SIDS, Jan 2011 – Dec 2012, Regional planning and development & QMS with ACS, total		Ministry for Foreign Affairs of Finland
Vietnam, May 2010 – Dec 2012, Observation netw weather radar products and modernization of the № 500k€	vork,	Ministry for Foreign Affairs of Finland
FYROM (Macedonia), Aug 2010 – Aug 2012, Air on the construction of the construction o	Quality	EU
<b>Trinidad &amp; Tobago</b> , Jan – Dec 2011, SmartMet re training, total 80k€	efresher	Ministry for Foreign Affairs of Finland
<b>Jamaica</b> , Jan – Dec 2011, SmartMet refresher tra 80k€		Ministry for Foreign Affairs of Finland
Barbados, Jan – Dec 2011, Calibration laboratory system development, total 80k€		Ministry for Foreign Affairs of Finland
Central Asia, May 2011 – May 2012, GCOM dowl for decision making in the water sector in Central A 40k€	Asia, total	Asian Development Bank
<b>Sudan</b> , Jul 2011 – Dec 2013, Institutional capacity development in Khartoum and Juba, establishmen meteorological office, total 500k€		Ministry for Foreign Affairs of Finland

# 6. Challenges in Resource Mobilization for your Activities / Projects / Events

Overall reduction in government funding for the public sector has resulted in a 4-year freeze on development funding, which remains the main source of funding for FMI international projects. FMI is foreseen to benefit overall from the Ministerial position of the current Minister for Development, but with an increasing focus on the civil society sector and issues such as human rights and the rights of easily marginalized groups.

The availability of experienced and capable Project Managers has been an issue, not least because of the language requirements for international work. The FMI solution has been to recruit less experienced but potential managers to project to grow into the international domain, but will take time before capacity is fully developed.

In addition, the ever-increasing demand for donors to show benefits in the lives of individuals and communities from hydrometeorological development project is increasing the demand for community-based approaches that is not within the regular expertise of the FMI. For this reason FMI is increasingly looking at cooperation with NGOs or other grassroots organizations to implement the dissemination and outreach components.

# 7. Opportunities for Increased Activity for your Activities / Projects / Events

New funding from projects with NGOs, currently with the Finnish Red Cross, are going to be increasingly important. NGOs are able to showcase presence in the communities and to disseminate project results to the end users in a way not possible to the NMHSs.

Cooperation with the World Bank is expected to result in new opportunities and fruitful cooperation.

Greatest future opportunities lie with new funding mechanisms and improved partnerships with other contributing members and organizations.

### 8. Opportunities for more cooperation with other members / organizations

Increased cooperation with WMO is also an opportunity to explore as it gives an increased level of legitimacy to the proposals and connects to the UN system.

Better coordination of activities with other active NMHSs would further improve the current level of project and cost-effectiveness. Discussions on cooperation started with e.g. NOAA, UK MetOffice and DWD.

The WMO Project Coordination Unit and increasing project activities could also utilize member resources more efficiently through e.g. LoA:s and MoU:s to carry out technical tasks.

A model whereby advanced NMHSs would join forces to bid for large World Bank projects with complementing expertise could provide significant opportunities and build the trust in the WMO members to help other members through consortiums and cooperation projects.

#### **FRANCE**

In 2011, the estimated financial value of France's contributions for VCP through the VCP-Equipment and Services VCP(ES), Training/Fellowships and provision of equipment and services through bilateral/multilateral arrangements amounted to : 816 210 €

Ongoing Projects 2011/2012

## 1) Equipment

Beneficiary country: Vanuatu

Project overview: within the framework of an AFD (French Agency for the Development) funding, a project was implemented in order to strengthen the forecasting capabilities of the Vanuatu Meteorological Service (VMS). This project aimed to equip the Vanuatu Meteorological Service (VMS) with a SYNERGIE 4.5 forecasting workstation, along with a dedicated data flow from Meteo France and related installation and training services. The project was implemented and managed by Meteo France International while all on-site services were provided by Météo France New Caledonia Regional Centre.

Cost : 40 000€

Status of the project: The system has been prepared in factory with dedicated configuration, installed and commissioned at VMS Port-Vila in November 2011. A 10 day SYNERGIE administration course was provided on-site by an IT expert from Météo France Nouméa. A 5 day on- site forecaster/user training course was provided by a forecaster from Météo France Nouméa.

Indian Ocean Commission (IOC) project

Beneficiaries countries: Madagascar, Mauritius, Seychelles.

Cost : 266 000 € (French Ministry of Foreign Affairs, through an agreement with Météo-France).

Background: This project consists in upgrading previous 2005 implementations aiming at setting up in Madagascar, Mauritius, Seychelles and Comoros meteorological telecommunication and forecasting systems and related installation and training services. Such systems were supplied by Meteo France International and the related services were jointly provided by Météo France International and Météo-France Tropical Cyclone RMSC La Réunion. Special emphasis was given to cyclone tracking, application for which the dedicated expertise of the RMSC La Reunion was crucial.

This project is aiming at upgrading the systems previously supplied by MFI, not yet upgraded by the beneficiary countries:

- Upgrade of Madagascar SYNERGIE forecasting system, and related services, including site training for forecasters and IT administrators on the new workstations.
- Upgrade of Mauritius forecasting system, and related services including site training for forecasters and IT administrators on the new workstations.
- Upgrade of Seychelles Automatic Messages Switching System (Transmet) and Synergie forecasting system, and related services.

Meteo France International is in charge of the management and implementation of this project. Météo-France Regional Centre of La Réunion is involved in the local services related to this project.

**Planning** 

#### Madagascar:

- Upgrade of CLYSIS CDMS installed in Madagascar in 2004 including data rescue, provision of new hardware (with a WMO contribution) and the installation of a new version of CLYSIS.
- 2) Experts Service and Fellowships through bilateral cooperation; (Financing : Météo-France and French Ministry of Foreign and European Affairs)

In 2011, Météo-France hosted 104 trainees and scientists from countries such as Algeria, Belarus, Benin, Burkina Faso, Bulgaria, Burundi, Comoros, Congo, Egypt, Ethiopia, Gabon, Ivory Coast, Lebanon, Lithuania, Latvia, Madagascar, Mali, Mauritius, Morocco, Niger, Romania, Rwanda, Senegal, Serbia, Seychelles, Swaziland, Tanzania, Togo, Tunisia, Ukraine, Zambia, for an estimated cost of 447 210 €

Eleven of them came to Météo-France's Satellite Meteorology Center in Lannion for training in satellite meteorology. They also attended several training courses organized at the Met School "Ecole Nationale de la Météorologie" in Toulouse, with emphasis in the following topics:

- Techniques and organization of forecasting at Météo-France
- Weather forecasting in mid-latitudes regions
- More specialized trainings such as marine meteorology or aeronautical meteorology, etc. Most training courses are part ENM's catalog, but some can be customized for special needs.

In 2011, a meteorologist from Madagascar has begun a specialized Masters degree course called OASC (Océan Atmosphère Surface Continentale) from September to December (fellowship from French Embassy).

3) Training of Haitian meteorological Technicians.

Following an intensive one-year training programme at ENM in Toulouse and after having brilliantly obtained their Technician Diploma in June 2011, the five Haitian meteorologists undertook on-the-job training in La Martinique in order to complete and consolidate their initial training in an operational environment. Météo-France contributed to this operation to an amount of 63 000 € (60 000€ from a VCP France line and 3000 € for accommodation costs in la Martinique)

These 5 technicians, together with the two other Haitian forecasters, will work on a roster basis with Météo-France forecasters in La Martinique from January to June 2012. They will gradually take over the work of the special task force of international forecasters who provided assistance to the forecasting staff at CNM until the end of 2011, within the framework of the "visiting programme". The arrangements for the work of the 7 forecasters in la Martinique from January to June 2012 are funded by France (French Ministry of Foreign and European Affairs and Météo-France/La Martinique) for an amount of 18 000 €

4) Support to the ACMAD Centre.

Estimated Cost: French Ministry of Foreign and European Affairs : 161 000 €, Météo-France : 20 000 €.

In 2011 France continued its support to the ACMAD Centre through the following actions:

- Support to the executive management including the funding of a Technical Assistant and a contribution to the operating Budget.
- Support for the organization of a workshop on seasonal forecasts in West Africa
- Development of databases and technical skills
- Support for the implementation of operational activities of the ACMAD Center
- Support to the PRESAO forum dedicated to seasonal forecasts in West Africa.
- Support to the configuration of SYNERGIE workstations at ACMAD Centre.

#### 5) FFEM Long Term Projects:

#### ViGIRisC project:

Beneficiary countries/regions: Southern Africa (South Africa, Angola, Botswana, Malawi, Mozambique, Zambia), Central Africa (Cameroun, Central African Republic, Gabon, Congo, São Tome & Principe, Eastern Africa (Democratic Rebublic of the Congo, Djibouti, Ethiopia, Kenya, Rwanda, Tanzania, Uganda) Western Africa (Benin, Burkina Faso, Guinea, Mali, Niger, Nigeria, Senegal, Sierra Leone).

Duration: 2009 to 2012

Value : total cost 4 M€, FFEM contribution 2 M€

Status in 2011:

- FFEM funding performed in 2011 (including commitments): 385 K€
- Ministry of Foreign and European Affairs funding: a Technical Assistant 150 K€ + 11 K€ Operating Budget.

Activities in 2011/2012:

- Following the study on the review of the existing early warning systems in Africa and on the opportunities of Early Warning Systems in Africa, four pilot projects are under consideration: Health in Ethiopia, Water Resources Management in Niger (Project Kandadji), Food security (country to be identified), Severe weather events (country to be identified)
- Training on GIS (2012)

#### **ACClimate**

Beneficiary countries: Member States of Indian Ocean Commission (Comoros, Madagascar, Mauritius, Seychelles, La Réunion)

Duration: 2009-2011.

Value: total cost 3 645 000 €,

Main contributors : FFEM 1 M€, French Ministry of Foreign and European Affairs 495 K€, La Réunion 215 K€

Status end of 2011: Meeting of the technical focal points of the project, Training Seminar on climatological data within the framework of the Study on the potential of a climate simulation "IOC Countries" and the feasibility of a Regional Climate Base in La Réunion in September.

Highlights from projects/activities

#### 1) Support to Haiti

The mobilization of the international community as well as the active participation of Haitian meteorological staff to meet urgent needs and ensure the production of daily forecasts and warnings in the last two years could be considered as a success story. However more stability in the political situation and more progress in the restoration of CNM's basic infrastructure would be necessary to ensure the sustainability of the project.

In 2012, Météo-France will be able to maintain (and upgrade) the dedicated Extranet website operational until the end of the year.

To make the best of training provided to Haitian forecasters at Météo-France la Martinique, it is crucial that the CNM be provided with appropriate forecasting tools upon their return in Haiti in the second half of 2012.

## 2) Training course on satellite meteorology.

Since 2009 Météo-France organizes two one-week training courses in satellite meteorology. The first one, entitled "EUMETCast acquisition station expertise" is intended for National Meteorological Services wishing to implement a DVB-EUMETCast reception station. The second course entitled "Remote sensing from space" provides a comprehensive overview on Remote sensing technology and applications. Around a common core (space agencies, satellite missions, principles of measurements, radar, atmospheric soundings,

oceanography, images and products), one or more themes are more specifically developed each year.

The 2011 course placed special emphasis on remote sensing technology and applications in the maritime field with sea surface temperatures and waves, aerosols remote sensing, observation of clouds and their physical properties and the assimilation of satellite data in numerical prediction models.

During the past three years, 28 meteorologists from Africa and the Indian Ocean Region were able to attend these courses thanks to fellowships granted by France *Upcoming projects/activities* 

#### 1) Equipment:

Depending on the availability of funds, France could provide additional equipment for Vanuatu and other Small Island Developing States in the Pacific.

## 2) Training and fellowships

In 2012/2013, Météo-France will continue to support experts' missions and training activities through bilateral cooperation at the same level as in 2011 (optimistic figure).

### 3) Towards a contribution to GFCS:

Météo-France will continue to provide technical support to the ACMAD Centre in the accomplishment of its new responsibilities as Regional Climate Centre (RCC) for the Region I and as regards to the ClimDevAfrica project.

Cooperation will also be sought with countries neighboring the French overseas territories as regards to climate data, projections and specific climate products. Météo-France will produce new finer scale climate projections at the global and regional levels, focusing on Europe, Mediterranean, Africa and the neighborhood of its overseas territories.

### 4) Adaption and mitigation projects:

Africa and Indian Ocean Region:

New projects are under consideration following up on ACClimate and ViGIRisC projects, which should end in 2012, as well as in the West Indies.

# **GERMANY**

1. Country	
Germany	
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)
[1,777,911.00 USD]	[unknown]
4. List of Activities / Projects / Events in 2011 related to contribution	5. Sources of Funding (*)
Training: To support NMHSs of developing countries in the introduction of regional numerical weather prediction, the DWD carried out once again a two-week Regional NWP Training Workshop in July 2011. [ongoing]	DWD
Establishment of an additional academic post at DWD [2011-2013] for technical assistance to the DWD's cooperation with national meteorological services (especially in developing countries) in the field of regional numerical weather prediction.	DWD
For all seminars held at the DWD Meteorological Training and Conference Centre or at the DWD headquarters, accommodation expenses are reduced for participants from developing countries and countries with economies in transition.  [ongoing].	DWD
CM SAF Training Workshop [October 2011] in Langen, Germany, "The Use of Satellite data for Climate Applications" for trainees from Europe and Africa	DWD
CAWa-Project [2008-2011]: Two training courses for specialists of Central Asian NMHSs and Afghan institutions on "Hydrometeorological Monitoring Stations: Installation, Operation, maintenance" and "Climate Change Impact Assessment and Hydrological Modelling."	GFZ (AA)
With its support for the GAWTEC (Global Atmosphere Watch Training and Education Centre), Germany contributed to the continuous quality assurance program of the WMO [ongoing].  Two courses were financed during 2011 to provide technical assistance and training to station personnel and central facilities. (Most trainees came from countries in the WMO regions Africa, Asia and South America.)	BMU / DWD
The German IHP/HWRP Secretariat organised and supported three workshops on "Flood Forecasting" in Koblenz, "Training Course on Integrated Water Management" in Adis Abeba and "Workshop on Cooperation in the Euphrates and Tigris River basins" in Istanbul.	IHP/HWRP
Trilateral Cooperation Program Brazil-Mozambique-Germany [2011-2012] (see "Infrastructure"): Implementing of an automated early warning system to reduce disaster risk in the Búzi and Save River Basins. The actors from the improved regional early warning services were trained	GIZ (BMZ) and DWD

maintenance.	
Expert services: The DWD supports 21 developing countries and countries with economies in transition in the operational use of the DWD's NWP model by providing them with the corresponding boundary data and training. [ongoing]	DWD
A WIS Jumpstart Offer was supported by Germany through on-site training, workshops and management consulting (South Africa).	DWD
Germany continued its support of the WMO RA VI Regional Dobson Calibration Centre at Hohenpeißenberg. DWD and WMO developed the NOx Measurement Guidance Report and the O3 Measurement Guidance Report in 2011.	DWD
Germany completed an internal study relating the issuing of a Wind Atlas for Azerbaijan.	KfW (BMZ)
Trilateral Cooperation Programme Brazil-Mozambique-Germany [2011-2012] (see "Infrastructure") Implementation of an automated early warning system for disaster risk reduction in the Búzi and Save River Basins	GIZ (BMZ) and DWD
A test stage started after automatic weather stations were installed. With a permanent control in the first months the functioning of the stations could be achieved.	
Infrastructure:	
Trilateral Cooperation Programme Brazil-Mosambique-Germany: [2011-2012] Implementation of an automated early warning system for disaster risk reduction in the Búzi and Save River Basins	GIZ (BMZ) and DWD
Important partners of the project: the German Meteorological Service (DWD), the Mozambican National Institute for Meteorology (INAM) and the Brazilian Institute for Meteorology (INMET)	
German technical cooperation contributions within the programme: Support to the Mozambican Meteorological Institute INAM in the improvement of hydro-meteorological services (regional weather forecasts for early warning and agriculture, wave and storm forecasts for coastal regions);	
Installation of 8 climate stations in Central Mozambique with the assistance of the Cologne University for Applied Sciences; Parallel setting up of data server and telemetric systems for the climate stations (At present, data are measured fully automatically every 10 min.)	
Germany also supported the next phase of the establishment of a very basic flood warning system for the rivers Rio Save and Búzi and provided appropriate training. The basic flood warning system will soon be handed over to local government authorities.	Munich Re foundation
CaWa project (2008-2011): An additional automated hydrometeorological monitoring station has been installed at Abramov glacier in Kyrgyzstan. (At the end 2011: 5 stations in operation as part of the CAWa monitoring network and provide standard meteorological data.)	GFZ (AA, co-funding from the German Federal Ministry of Education and

	Research.)
Through the GCOS Co-operation Mechanism Germany was able to contribute to GCOS by supporting the BSRN Station Ilorin in Nigeria.	DWD
Germany contributed to Trust Funds that help support scientific and technical capacity building activities (e.g. AMDAR, THORPEX, WIS). In 2011, Germany was again able to support the GCOS secretariat.	DWD

# 6. Challenges in Resource Mobilization for your Activities / Projects / Events

 Implementation of activities and projects through several organisations
 communication between national donor organisations in need of

improvement.

- Lack of human resources in donor NMHS makes technical cooperation activities such as expert assignments in developing countries more and more difficult.
- Lack of awareness by some national donors about the importance of strengthening the capacity of NMHSs in developing countries to provide the necessary weather and climate services in their country. Lack of understanding for the necessity of an efficient meteorological infrastructure for successful implementation of service provision projects.
- Project proposals must receive sufficient support from the recipient side (NMHS, government).

# 7. Opportunities for Increased Activity for your Activities / Projects / Events

In general, there are opportunities through making use of the increased investments in climate changerelated projects by combining them with cooperation projects for the NMHS of developing countries.

Activities in 2012 will mostly cover the same areas and involve the same amounts as in 2011, increased activity is possible in the following areas:

- Provision of the COSMO model, (including documentation) to NMHS's in developing countries for research purposes and for operational NWP: It is planned that NMHSs in developing countries will receive a free license for an older version of the COSMO model (about one year old). By the end of 2012, the COSMO model will replace the HRM (which is not further developed).
- Under the framework project "Adaptation of agriculture and agricultural water use to climate change in the Andean countries" of the GIZ, DWD and GIZ will organize a training programme for South American governmental scholarship holders from May to December 2012.
- The extension of Mozambique's flood warning system (inclusion of Northern and Southern parts of the country) is planned.
- The DWD will furthermore act as an associated partner of two projects relating to the establishment of Regional Science Service Centres (RSSC) aimed at sustainable land management and adaptation to climate change in the Southern and the Western African region. The DWD's contribution to these projects, funded by the German Federal Ministry of Education and Research, will be to provide expertise and consulting.
- A Climate Monitoring and Early Warning System project in Zambia is under appraisal: This project will support the Integrated Water Resources Management Information System of Zambia by modernising and extending the

meteorological services.
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# 8. Opportunities for more cooperation with other members / organizations

- With other members: identification of similar activities in one area by exchange of information and analysis of the country reports. Establishing of contacts with stakeholders to take advantage of synergies and for possible joint projects.
- With other organizations: regular national round table discussions with several donor institutions to identify projects and activities and to discuss possible cooperation.

(\*)
DWD - Deutscher Wetterdienst (German Meteorological Service);

BMU - Federal Ministry of the Environment

GIZ - Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation);

KfW - Kreditanstalt für Wiederaufbau (Promotional bank of the Federal Republic and the federal states). BMZ - Federal Ministry of Economic Cooperation and Development GFZ - German Research Centre for Geosciences

AA - German Federal Foreign Office

# HONG KONG, CHINA

1. Country	
Hong Kong, China	
2. Overall national contribution in 2011	3. Overall estimated national contribution
(estimate in USD)	in 2012 (in USD)
35,000.00 USD	35,000.00 USD
4. List of Activities / Projects / Events in	
2011 related to contribution	5. Sources of Funding
Training Workshop on Implementing	Government of the Hong Kong Special
Competency	5 5 1
Assessment for Aeronautical Meteorological	Administrative Region (HKSARG)
Personnel, 5-9 December 2011	Besides, WMO ETR also contributed an
Objective: To introduce the competency standards	amount
for Aeronautical Meteorological Personnel	of ~15,000 CHF to cover the round-trip flight
(AMP)	costs
and promote sharing of experience among WMO	of several participants from RA V.
members in the implementation of a framework for	
competency assessment for AMP	
6. Challenges in Resource Mobilization for your Activities / Projects / Events	7. Opportunities for Increased Activity for your Activities / Projects / Events
The Workshop was over-subscribed. With	Hong Kong, China will continue to organize
limited resources, only a fraction of the	similar
nominations were accepted to attend.	workshops on various topics.
9 Opportunities for more econoration with	ather members / argeniactions

# 8. Opportunities for more cooperation with other members / organisations

The Workshop provided a platform for countries to interact and to exchange ideas with each other. Some

participants requested further assistance from Hong Kong, China for the implementation of their competency

assessment programme.

#### **JAPAN**

#### 1 Direct Financial Support

In 2010, "Japan Trust Fund for Global Frameworks" was established in order to facilitate the financial contribution of JMA to a broad range of WMO programmes and projects that support the establishment, implementation and strengthening of all components of the Global Framework for Climate Services, including disaster prevention, agriculture, and water resource management in the world.

In 2011, Japan made a cash contribution of US \$55,000 to the VCP (F) and VCP-related activities through the WMO from this new Fund. Further to its budgetary contribution, Japan provided training activities to the value of US \$28,0000 and several types of in-kind support by Japanese manufacturers during the year.

# 2 Training issues

The Japan Meteorological Agency (JMA) conducted a three-month Group Training Course in Reinforcement of Meteorological Services with funding support from the Japan International Cooperation Agency (JICA). The course was offered to eight participants from seven countries (Jordan, Kenya, Lao PDR, Mozambique, Myanmar, Samoa, Uganda) from 13 September to 17 December 2011. This course aimed at promoting activities to reinforce the meteorological services of each country applying meteorological data/products such as numerical weather prediction, satellite images, and climate information.

On-the-job training for typhoon forecasters, funded by the Typhoon Committee, was offered to two forecasters from LAO P.D.R. and Macao China at RSMC Tokyo Typhoon Center from 20 to 29 July 2011.

Training Seminar on Climate Information and Forecasting has started since 2008. The fourth seminar was conducted at Tokyo Climate Center from 7 to 9 November 2011, offered to 13 participants from 13 Members (Bangladesh, Cambodia, Hong Kong China, Indonesia, Lao Democratic People's Republic, Malaysia, Mongolia, Myanmar, Pakistan, the Philippines, Sri Lanka, Thailand and Viet Nam).

JMA financially supported a RSMT meeting as well as training activities for SWFDP in South east Asia through Japan Trust Fund for Global Frameworks in 2011.

#### 3 Infrastructure

In 2011 JMA supported Emergency Assistance Fund to provide partial support to the VCP request from Pakistan for the restoration of 10 Automatic Weather Stations and 10 conventional surface meteorological stations for the Pakistan Meteorological Department.

In 2011, Oriental Electronics, Inc. Japan generously offered in-kind support through the VCP by providing engineering services to the Bangladesh Meteorological Department (BMD) for migration of data exchange code to the Table Driven Code Format as well as system maintenance.

In 2011, JMA supported radiosondes at Rarotonga, Cook Islands and renovation of two GSN stations in Cook islands through GCOS Cooperation Mechanism(GCM).

In 2011, JMA and TOTEX corporation, Japan provided 120 pieces of GPS radiosonde and meteorological balloons for the CINDY/DYNAMO field experiment project in Sri Lanka respectively.

## 4 Expert Services

JMA sent experts for technology transfer to Indonesia, in the field of climate services, to Brazil in the field of climate adaptation, to Thailand in the field of development of radar composite map under a project of Typhoon Committee, and to Myanmar in the field of typhoon analysis and forecasting as a follow-up of a JICA Technical Cooperation project with the support of VCP.

## 5 Grant Aid Projects

A Grant Aid Project (total: \$29 million) was launched in November 2009 in the Philippines for the improvement of the meteorological radar system. Three radar systems at VIrac, Aparri and Guiuan and data satellite communication system are being installed under this project.

A Grant Aid Project (total: \$8 million) was launched in 2010 in Samoa for Improving the Weather Forecasting System and Meteorological Warning Facilities. Seven AWS, one airport observation system, one wind profiler system and data communication systems are being installed under this project.

A Grant Aid Project (total: \$25 million) was launched in 2011 in Vietnam for the enhancement of flood forecasting skills and thus strengthening disaster prevention measures implemented by the government of Vietnam. The project is to support installation of two Doppler radars and other meteorological equipment in the northern part of the country.

### 6 Technical Cooperation Project

A technical cooperation project in Bangladesh on development of human capacity on operation of weather analysis and forecasting was launched in 2009. This is to follow-up the Grant Aid Projects for the improvement of the meteorological radar system.

A technical cooperation named Disaster Management Capacity Enhancement Project Adaptable to Climate Change in Sri Lanka was launched in November 2009. This is to follow-up the Grant Aid Project for the improvement of the meteorological and disaster information network.

A technical cooperation project for Meteorology Training for Fiji and neighboring countries has been conducted since 2010. In August 2011, a training course on NWP and TC analysis using SATAID (Satellite Animation and Interactive Diagnosis) was conducted by JICA, JMA, New Zealand National Meteorological Service and WMO.

A technical cooperation project was launched in 2009 in Myanmar for developing early warning systems for Cyclone Nargis affected areas. In association with this project, two technical missions were conducted at the Department of Meteorology and Hydrology in Myanmar in January and March 2011, to enhance its capacity for disseminating cyclone advisories and warnings as well as storm surge and wave forecasting.

#### 7 Plans for 2012

In 2012, Japan will continue to support the improvement and enhancement of meteorological and hydrological services of NMHSs, particularly in developing countries through 1) the

Japan Trust Fund for Global Frameworks, and 2) related activities including training/fellowship, in-kind contributions by private companies in Japan, and 3) bilateral cooperation under the Official Development Assistance scheme.

With the support of JICA, in March 2012, JMA plans to host a training course with a focus on sharing lessons learnt from JMA's emergency response to the Great East Japan Earthquake in 2011, highlighting the importance of multi-hazard risk management. Senior staff members from NHMSs of eleven countries (Bangladesh, Cambodia, Fiji, Indonesia, Lao P.D.R., Malaysia, Myanmar, Sri Lanka, Thailand, the Philippines, and Vietnam) will participate in this course.

1. Country	
Japan	
2.41.5	
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)
VCP(F) 55,000 USD  VCP(ES) total 608,663 USD(325,663+283,000)  - Equipment and Services 325,663 USD  - Training/Fellowship 283,000 USD  VCP(ES) Bilateral arrangement unknown	Unknown
4. List of Activities / Projects / Events in 2011 related to contribution	5. Sources of Funding
Group Training Course in Reinforcement of Meteorological Services, 3 month, Jordan, Kenya, Lao P.D.R, Mozambique, Myanmar, Samoa, Uganda	National Government / Japan International Cooperation Agency (JICA)
On-the-job training for typhoon forecasters, 2 weeks, Macao, Lao P.D.R.	National Government / Japan Meteorological Agency (JMA)
Training Seminar on Climate Information and Forecasting, 3 days, Bangladesh, Cambodia, Hong Kong, Indonesia, Lao P.D.R, Malaysia, Mongolia, Myanmar, Pakistan, Philippines, Sri Lanka, Thailand, Viet Nam	National Government / JMA
Meeting of RSMT and training activities for SWFDP-SeA	National Government / JMA
Dispatch of 2 experts in the field of climate adaption, 2 weeks for each, Brazil and Panama Dispatch of expert in the field of early warning system, 4	National Government / JICA National Government /
month, Myanmar Dispatch of expert in the field of satellite meteorology, 2 weeks, Fiji	JICA National Government / JICA
Dispatch of expert in the field of storm surge, 2 weeks, Myanmar	National Government / JICA
Dispatch of 2 experts in the field of satellite meteorology, 2 weeks, Myanmar	National Government / JICA
Dispatch of 2 experts in the field of satellite meteorology, 2 weeks, Myanmar	United Nations / WMO

Dispatch of expert in the field of radar, 1 week, Thailand	United Nations / ESCAP
A Grant Aid Project for improvement of the meteorological	National Government /
radar system, 2009- 2014, the Philippines	JICA
A grant Aid Project for improving the weather forecasting system and meteorological warning facilities., 2010-2011, Samoa	National Government / JICA
A grant Aid Project for improving the weather forecasting system and meteorological warning facilities., 2010-2011, Vietnam	National Government / JICA
A technical cooperation project on developing human resources for meteorology and hydrology, 2006-2011, Lao P.D.R	National Government / JICA
A technical cooperation project on development of human capacity on operation of weather analysis and forecasting, 2009-2012, Bangladesh	National Government / JICA
A technical cooperation named Disaster Management Capacity Enhancement Project Adaptable to Climate Change, 2010-2013, Sri Lanka	National Government / JICA
A Technical cooperation for Meteorology training for Fiji and neighboring countries, 2010-2012, Fiji	National Government / JICA
A technical cooperation project for developing early warning systems for Cyclone Nargis affected areas, 2009-2012, Myanmar	National Government / JICA
Provision of 120 pieces of GPS radiosonde, Sri Lanka	National Government / JMA
Provision of meteorological balloons, Sri Lanka	Private Company/TOTEX Corporation
Provision of Engineering Services including development of software for TCDF migration to BMD	Private Company/Oriental Electronics, Inc. Japan
Contract for TODI infigration to DIVID	
Contract for 1001 inigration to bind	
6. Challenges in Resource Mobilization for your Activities / Projects / Events	7. Opportunities for Increased Activity for your Activities / Projects / Events
6. Challenges in Resource Mobilization for your Activities	Increased Activity for your Activities / Projects
6. Challenges in Resource Mobilization for your Activities / Projects / Events  None	Increased Activity for your Activities / Projects / Events  None
6. Challenges in Resource Mobilization for your Activities / Projects / Events	Increased Activity for your Activities / Projects / Events  None
6. Challenges in Resource Mobilization for your Activities / Projects / Events  None	Increased Activity for your Activities / Projects / Events  None

#### **NEW ZEALAND**

New Zealand (NZ) contribution to weather, climate, water and related environmental programmes internationally is **US\$1,906,817.00** (see breakdown below). It is predominantly bilateral in nature via a mix of direct NZ government aid programmes, joint activities with other collaborating partners (US NOAA, Met Office UK, Australian Bureau of Meteorology, WMO, etc.) and the private sector. The focus of assistance is on Pacific Island Countries and Territories (PICT). The goal of NZ and partners' assistance is to further enhance the capacity of PICT to operate and manage their own weather, climate, water and related environmental services. Funding from NZ comes out of the Ministry of Foreign Affairs and Trade/NZ Aid Programme (MFAT/NZAID), Ministry for the Environment (MfE) and Ministry of Transport (MoT). Priority areas of assistance include;

- Ensuring the continuing quality and integrity of data gathered in PICT in accordance with the Global Observing System (GOS).
- Ensuring the continuing quality and integrity of climate data gathered in PICT as part of GCOS.
- Providing facilities for the GTS via maintaining a Regional Telecommunication Hub (RTH) on the GTS for the purpose of relaying observations to and from Australia and PICT National Meteorological Centres (NMCs) and other islands and relaying forecasts, analyses and other products to and from Australia and the PICT NMCs.
- Providing backup service to the WMO Regional Specialised Meteorological Centre (RSMC) Nadi during the Tropical Cyclone season.
- Regional coordination for the WMO Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project (SWFDDP) for PICT.
- Implementing the NZ Climate Change Development Fund (CCDF).
- Managing Trust Funds as agreed from time to time with other development partners supporting weather, climate, water and related environmental services in PICT.

## Highlights from 2011/2012

# NZ Ministry of Transport (MOT) contract/MFAT-NZAID US\$173,202

Assistance provided under this programme includes the following;

- Technical assistance and advice via remote and in-country visits to Cook Islands, Kiribati, Niue, Tonga, Samoa, Tuvalu and Tokelau.
- Backup services to RSMC Nadi.
- Regional coordination of the SWFDDP.
- Development, maintaining and sustaining SWFDDP MetConnect Pacific website
- Maintaining RTH in Wellington
- Staff involvement in Pacific regional/WMO programmes and activities
- Undertaking in-country training and public awareness on weather, climate, water and related environmental programmes.

## MfE Climate Change Development Fund (CCDF) US\$173,651

Assistance provided under this programme includes the following:

- Support to MetService to provide in country training for the SWFDDP in ten PICT. A
  pilot project commenced in 2009 and assistance from the CCDF is being used to
  support additional in-country training to further strengthen the capacity of PICT NMSs
  end users in severe weather forecasting and to enhance coordination between PICT
  NMSs and emergency management authorities and the media.
- Provision of technical expertise into a planning workshop in Vanuatu to design two new Pacific Climate Change programmes, in partnership with Pacific Island Countries and East Timor, and bilateral technical assistance to Vanuatu Meteorological Service

- to help them develop a proposal for a Vanuatu project based on the Samoan Climate Early Warning System Project (CLEWS). This project helped address needs identified in the Vanuatu Climate Change NAPA (National Adaptation Plan of Action).
- Assistance to the Asia-Pacific Network for Global Change Research (APN) contributing to the Capacity Development and Enhancement for Sustainable Development in Developing Countries Programme (CAPaBLE). CAPaBLE builds and enhances scientific capacity in developing countries in the Asia-Pacific region to improve their decision-making in target areas related to climate change, water and food security, and global change that are linked directly to their sustainable development.
- Providing funding support to the United Nations Framework Convention on Climate Change (UNFCCC) Nairobi Work Programme (NWP) on impacts, vulnerability and adaptation to climate change. Support was used to enhance the NWP web-based knowledge products and databases, in particular to ensure easy access to information for developing country practitioners, and to produce a set of user-friendly information and knowledge products reflecting NWP findings, with a view to enabling their dissemination through regional partners (in Africa, Asia, Latin America, SIDS) to benefit practitioners at ground level.
- Supporting the UNFCCC Fellowship Programme which has the objective of building the capacity of young professionals from developing countries, in particular from Small Island developing States and least developed countries. Potential candidates for the Fellowship Programme are already employed in governmental institutions, ranging from ministries and other national authorities to educational and research institutions associated with the government, and are eager to undertake analytical work in one of the focus areas of the secretariat, such as adaptation, mitigation, transfer of technology, finance, capacity-building, greenhouse gas inventories and sustainable development mechanisms.
- Support for participation of PICTs scientists at the 10th International Conference on Southern Hemisphere Meteorology and Oceanography (10thICSHMO), 23-27 April 2012, Noumea, New Caledonia.

#### Pacific Islands Global Climate Observing System (GCOS), US\$1,030,000

- (i) NZ/US NOAA GCOS/PI-GCOS Climate Science and Technical Support Project
  - PI-GCOS Officer support, SPREP
  - Technical support to PI-GCOS Global Upper Air Network (GUAN) programmes in Rarotonga (Cook Islands), Bauerfield (Vanuatu), Nadi (Fiji), Port Moresby (PNG), Honiara (Solomon Islands)
  - Financial support to 10 ICSHMO, Noumea, New Caledonia
  - GHGs ship measurement programme (NZ to Japan)
  - Pacific Islands Climate research (Island Climate Update (ICU), South Pacific Rainfall Atlas (SPRAT), Tropical Cyclone database.
  - GCOS Rescue, Japan Meteorological Agency (JMA), GCOS Secretariat and WMO
  - University of Hawaii (UH) PI GCOS Activities
- (ii) NZ/Met Office UK Pacific Trust Fund
  - Support to GUAN programmes in Funafuti (Tuvalu) and Tarawa (Kiribati)
- (iii) NZ/Japan Meteorological Agency/GCOS Secretariat/WMO
  - Restoration of silent GCOS GSN stations in Cook Islands
  - Support GUAN in Rarotonga (Cook Islands).

#### Other bilateral and regional Supporting Projects (OSP), US\$529,964

- Pitcairn AWS support
- Tuvalu RANET/Vaitupu AWS (mSTAR)
- Tuvalu Refurbishment
- Kiribati Refurbishment
- Africa-Pacific GCOS/RANET
- Pacific Proton/Website Training
- PROLOCAL Penrhyn/Rarotonga, Cook Islands
- Pacific HF/RANET Regional Hub
- Port Moresby Proton, PNG
- SWFDP Pacific
- Pacific Climate Hazards
- NZAID/MFAT Pacific Tropical Cyclone
- Aitutaki AWS, Cook Islands
- Solomon Islands NMS consumables
- Henderson Airport AWS(iSTAR), Honiara, Solomon Islands
- Vanuatu Meteorological Service Instruments
- Rarotonga Airport AWS (iSTAR), Rarotonga, Cook Islands

## (b) 2012/2013 VCP Plan

New Zealand and its partners will aspire to sustain the same level of funding and related support to the activities supported in 2011/12 into 2012/2013.

#### REPUBLIC OF KOREA

#### **Contributions in 2011**

Estimated Financial Value of Contribution of ROK in 2011 (USD):

VCP(F)	VCP(ES)	Bilateral		Total
		ES	E&TR	
\$30,000	Nil	\$1,240,000	\$415,094	\$1,685,094

#### 1) Contribution to VCP Fund

The Republic of Korea contributed \$30,000 for the VCP Fund in 2011.

#### 2) Equipment and Services by Bilateral Arrangements:

The Korea Meteorological Administration (KMA) has been providing expertise support for the project – Establishment of Early Warning and Response System for Disaster Mitigation in the Metro Manila (Pasig-Marikina River Basin). This \$3M project, funded by the Korea International Cooperation Agency (KOICA), is implemented from 2010 to 2012 in order to modernize the flood forecasting system and early warning system for the Metro Manila region. The port of the contribution in 2011 was \$1M.

KMA dispatched its experienced retirees to the National Hydro-Meteorological Service (NHMS) of Viet Nam, the National Agency for Meteorology and Environment Monitoring (NAMEM) of Mongolia, the Kenya Meteorological Department, and the Malaysian Meteorological Department in 2011 through the World Friends Korea (WFK) program sponsored by the Ministry of Foreign Affairs and Trade to provide consultations for the

modernization of meteorological services in the countries. The WFK program aims at providing for the socioeconomic development of developing countries based on the exploration and planning of development projects, and the provision of technical and managerial consultation for the promotion of such projects. The contribution amounts to \$240,000 in total.

#### 3) Education and Training by Bilateral Arrangements:

In 2011, with the sponsorship of KOICA, KMA provided Training Courses on:

- Information and Communication Technologies for Meteorological Services (\$106,500);
   and
- Improvement of Meteorological Disaster Responsiveness for African Countries (\$65,400).

KMA co-organized with the Malaysian Meteorological Department (MMD) the Colloquium on Mesoscale Numerical Weather Prediction (Phase II) in October 2011 for 23 participants from the 7 ASEAN NMHSs under the auspices of the ASEAN-ROK Special Fund. The contribution was \$92,085.

KMA invited two experts from the Thai Meteorological Department (TMD) and the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) to KMA to provide a training at the National Typhoon Center of KMA on typhoon information processing system (TIPS) in 2011 for three months within the framework of the 2011 Typhoon Committee Training and Research Fellowship Program. The contribution was \$11,109.

KMA invited 10 Directors of NMHSs of the African National Meteorological Services (Kenya, Ethiopia, Sudan, Burundi, Tanzania, Uganda, Zambia, DR Congo and Zimbabwe) and a climatologist from the IGAD Climate Prediction and Applications Centre (ICPAC) to the Symposium on Coping with Climate Change held by KMA in Seoul on 1-3 November with the aim of establishing green partnership and strengthening capacity in dealing with climate change. The contribution was \$123,800.

KMA organized the following short-term training events:

- On-the-job training for two NAMEM experts for three weeks on numerical weather forecast (\$10,800)
- On-the-job training for three NAMEM experts for one week on aviation meteorology (\$5,400)

#### **Prospects for 2012**

### 1) VCP(F)

KMA will contribute \$30,000 to the VCP Fund in 2012.

#### 2) Equipment and Services by Bilateral Arrangements:

KMA plans to complete the KOICA Project - Establishment of Early Warning and Response System for Disaster Mitigation in the Metro Manila (Pasig-Marikina River Basin) – in the first quarter of 2012.

KMA and KOICA plan to establish "Real-Time Receiving and Analysis System of COMS Satellite" in developing countries. For instance Sri Lanka will benefit from this program within the budget of \$2M from 2011 to 2013. In addition, a few more countries inclusive of Viet Nam will be beneficiaries of this program this year.

KMA was able to secure a budget of about \$600,000 in 2011 for the first time for its own ODA activities. The following projects will be conducted in 2012:

- Feasibility study on establishment of weather disaster monitoring system in Viet Nam (\$35,000)
- Feasibility study on climate data rescue and establishment of climate data management in developing countries (\$35,000)
- Feasibility study on support for aviation meteorological services in developing countries (\$35,000)
- Feasibility study on support for WMO Information System activities in developing countries (\$35,000)
- Establishment of COMS data receiving system in two developing countries (through WMO) (\$335,000)
- Feasibility study establishment of e-Learning system and development of e-Learning contents for developing countries (\$35,000)
- International Training Course on Weather Radar Operation and Data Utilization (\$90,000)

KMA plans to continue participating in the WFK program to dispatch experienced retirees to some NHMSs for consultations on the modernization of meteorological services. KMA has reached more than 10 developing countries with the budget of about \$77,000 a year each country, and as a result 3 countries including Mongolia, Uzbekistan and Viet Nam decided to take part in this program.

## 3) Education and Training by Bilateral Arrangements:

In 2012 KMA will organize the following three KOICA training courses:

- Information and Communication Technologies for Meteorological Services;
- Improvement of Meteorological Disaster Responsiveness for African Countries; and
- Advanced Analysis of COMS Data.

KMA will provide two NAMEM experts with a two-week training program on supercomputer and NWP in line with NAMEM's plan to introduce a high-performance computing system for enhancement of its regional NWP system.

For contribution to capacity building in the field of climate prediction and application in the East Africa, KMA plans to organize a workshop on climate change adaptation in 2012 in Seoul for 10 experts from Africa.

#### **RUSSIAN FEDERATION**

# I. Training of hydrometeorological experts within the framework of the WMO Voluntary Cooperation Programme (VCP).

A state educational enterprise *Advanced Training Institute of Roshydromet (ATI)* has the status of a WMO Regional Training Centre (RTC) and is committed to bilateral cooperation, while continuing to provide training services to improve qualifications of hydrometeorological specialists from the CIS NMHSs within the WMO VCP. 30 specialists from the CIS NHMSs have been trained, amongst them 2 from Armenia, 15 from Azerbaijan, 2 from Belarus, 9 from Kazakhstan and 2 from Ukraine. Due to the use of new electronic technologies, the level of the educational process has significantly improved. Currently, two sites in the Russian language are available for the independent work of specialists. It is the site "Virtual Satellite Laboratory" (<a href="http://meteovlab.meteorf.ru/-Centre">http://meteovlab.meteorf.ru/-Centre</a> of Excellence WMO, CoE) and the site on hydrometeorological tools and equipment (<a href="http://tech.meteorf.ru">http://tech.meteorf.ru</a>). The sites contain lectures, scientific and informational materials on the major activities of Roshydromet. All the sections are constantly updated. In addition to that, ATI professors conduct distance learning online training courses for the personnel of Roshydromet and the CIS NMHSs. 10 distance learning courses for servicing aircraft are planned to be held in 2012, they will be attended by 80 specialists.

In 2011, 1.4 million roubles were allocated from the budget of Roshydromet in support of the WMO VCP.

A federal state budget educational institution of higher professional education *The Russian State Hydrometeorological University (RSHU)* has the status of a WMO Regional Training Centre (RTC) and organises training (additional training) and refresher courses for the personnel of the National Hydrometeorological Services (NMHSs) of the Regional Associations RA II (Asia) and RA VI (Europe).

In the academic year 2010/2011, 94 foreign nationals from such countries as Mali, Turkmenistan, Cameroon, Latvia, Tajikistan, Estonia, Abkhazia, Congo, Moldova, Benin, Kyrgyzstan, Jamaica, Azerbaijan, Equatorial Guinea, Guinea, Uzbekistan, Lithuania, Ukraine, Namibia, Viet Nam, Cote d'Ivoire, Bhutan, Mozambique, Mongolia, Tanzania, Chad, Algeria, Yemen, Palestine, Armenia, Tanzania, Kenya, South Korea studied Hydrometeorology and Applied Hydrometeorology in the RSHU with specialisations in "Meteorology" and "Hydrology".

The tuition fees for the main educational programmes for a higher professional education in the RSHU in 2011 averaged at 80,000 roubles per year, which is equivalent to 2,700 USD. Thus, the total cost of the Russian Federation on education amounted to 253,800 USD.

Starting with 2011, the Russian Federation awards foreign nationals with the Russian Government scholarships for the studies in the RSHU by designations of the National Hydrometeorological Services in hydrometeorological and related specialisations. In 2011, 31 scholarships were awarded to the citizens of Uzbekistan, Tajikistan, Moldova, Lithuania, Bolivia, Iraq, Benin, Vietnam, Mali, Kazakhstan, Sri Lanka, Pakistan, Colombia and Tanzania. In addition, in 2011 The Russian State Hydrometeorological University provided training to 17 citizens from Azerbaijan, Bolivia, Iraq, Congo, Lithuania, Mali, Mozambique, Moldova, Mongolia, Pakistan, Tajikistan, Turkey and Uzbekistan, all of whom had been designated for the WMO fellowships by the WMO Secretariat.

### A brief summary of related bilateral/multilateral technical cooperation activities

The RSHU participated in the following types of bilateral/multilateral technical cooperation activities:

A bilateral meeting between representatives of the National Hydrometeorological Services of the CIS State parties and the Baltic States with the representatives of the RSHU within the framework of their

participation in the XVIth WMO Congress; at this meeting the representatives of the NHMSs of the CIS and the Baltic States were informed about the initiative of the Russian Government to award scholarships to foreign nationals for their studies in the RSHU.

Participation in the international training events:

- RSHU staff participation as moderators in the international training on flood modelling "WMO International training course on flood modelling concept" (Turkey).
- Participation in the joint workshop of the WMO Secretariat, the United States COMET Program and the United States National Oceanic and Atmospheric Administration on the development of an online course on hydrology (United States).
- Participation as moderators in the training events of online training for hydrologists from Eastern Europe within the framework of cooperation among the WMO Secretariat, the COMET Program (United States) and the RSHU.
- Participation in the WMO Conference "Computer training methods in meteorology" (CALMET-2011) (South Africa)

Translation activities at the request of the Language Services Department of the WMO Secretariat

#### Completed translations:

- Guide to Hydrological Practices, Volume 1: Hydrology from Measurement to Hydrological Information, WMO-No.168, sixth edition, 2008.
- Guide to Hydrological Practices, Volume II: Management of Water Resources and Application of Hydrological Practices, WMO-No.168, sixth edition, 2009.
- 2 chapters in the publication WMO-No. 8 Guide to Meteorological Equipment and Methods of Observation.

At the request of the WMO Secretariat, a translation was performed, design works have been carried out, arrangements for the publication have been made and 100 copies of the WMO-No.975 publication "We care for our climate" have been printed out and sent to the WMO Secretariat. The RSHU expenses for the WMO-No.975 publication "We care for our climate" including its translation, design works, publication arrangements, printing and sending the copies to Geneva have amounted to 75,000 roubles (2,500 USD).

#### II. Technical cooperation within the framework of the WMO VCP.

In 2011, at the request of the Republic of Moldova, Roshydromet commenced the activities aimed at improving the GIS-METEO Hydrometeorological Information Processing System. This project was formally initiated within the framework of the WMO Voluntary Cooperation Programme and has reached its final stage.

#### III. Expected contribution in 2012.

In 2012, a WMO RTC in the Russian Federation intends to continue providing educational services within the framework of the WMO VCP. In 2012, the Russian Federation will award 50 scholarships of the Government of the Russian Federation to those foreign nationals who have been designated by the National Hydrometeorological Services for the studies in the RSHU.

A joint WMO-FSBI "Aviamettelecom" training seminar on the competencies of the aviation meteorological personnel is scheduled for June 2012. The estimated cost amounts to approximately 15,000 USD. During the preparation of this training seminar, it is envisaged that the RSHU staff will initiate the translation of the information content and the materials of the web-site of the Commission

on Aeronautical Meteorology Working Group on the Elaboration of the AMP Competency Assessment Tool. The estimated cost of translation amounts to approximately 3,000 USD.

In 2012, Roshydromet allocated 826.2 thousand roubles for the provision of technical assistance within the framework of the WMO Voluntary Cooperation Programme.

During the period of 2012-2015, upon request from the WMO Members, Roshydromet plans to supply the following:

- an automated primary processing system of sensitive weather information from stations and sites (PERSONA-MIS, PERSONA MIP);
- a hardware-software complex for receiving information from meteorological satellites (ALISA complex, SKANEX);
- a hydrologist-forecaster automatic workstation (AWS-hydrologist);
- a hardware-software complex "TV-Inform".

1. Country		
SPAIN		
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)	
[2,600,000.00 USD]	[800,000.00 USD]	

## 4. List of Activities / Projects / Events in 2011 related to contribution

**AFRIMET** (cooperation programme with NW African NMHSs)

- MARINEMET Project:
  - Acquisition of equipment (tide meters for NW African countries)
  - Delivery of products in the webpage <a href="http://www.afrimet.org/marinemet/">http://www.afrimet.org/marinemet/</a> and its maintenance
- METAGRI Project:
  - o Final METAGRI meeting in Bamako (Mali), Sep 11
  - o Training Seminar for METAGRI III in Lagos (Nigeria), Mar 11
  - Roving seminars in 10 African countries
- HEALTHMET Project:
  - National workshops to launch the Climate&Health WGs in Mauritania and Burkina Faso
- EMERMET Project:
  - Acquisition of meteorological equipment for Ivory Coast, Guinea, Sierra Leona and Togo
- Other activities:
  - AFRIMET webpage design and maintenance (<a href="http://www.afrimet.org">http://www.afrimet.org</a>)
  - o Distribution of information (leaflets, etc.)
  - Training activities
  - o Conference of NW African NMHS Directors in Sal (Cape Verde), Mar 11

**CIMHET** (cooperation programme with Ibero American NMHSs)

- Meetings
  - CIMHET Meeting for the discussion and approval of the Action Scheme 2011-13.
     San Jose, (Costa Rica), Mar 11
  - o 9th CIMHET General Meeting. Brasilia (Brazil), Nov 11
  - Assistance to PROHIMET Workshop on Hydrometeorological Networks for the Prevention of Disasters. Queretaro (Mexico), Nov-Dec 11
  - Assistance to climate for in Central and South America
- Training activities
  - Course on Application of Satellite Meteorology to mid-latitudes. Santa Cruz de la Sierra (Bolivia), Oct 11. (1) (2)
  - Course on Application of ECMWF Global Model to tropical meteorology. Antiqua

(Guatemala), Sep 11. (1) (3)

- o Course on Generation of Regionalized Climate Change Scenarios. Lima (Peru), Oct
- o Course on Integrated Flood Management. Asuncion (Paraguay), Oct 11.
- E-course on Strategic Management for NMHS Senior Officers. May Jul 11 (4)

#### Other activities

- On-going support to learning-by-doing pilot projects on relation with key sector users (Chile, Peru and Panama)
- Project to enhance the availability of COMET e-learning modules in Spanish. 2 month internship of an AEMET expert in Boulder (USA)
- Image and promotion
  - Maintenance of the CIMHET webpage (<a href="http://www.cimhet.org">http://www.cimhet.org</a>)
  - o Distribution of information (leaflets, etc.)

#### SDS-WAS and GAW activities

- Support to the Ushuaia GAW station: provision of ozonesondes
- Support and coordination of the 2<sup>nd</sup> Training Course on WMO SDS-WAS Products. Istambul (Turkey), Feb 11.
- Support to the 2<sup>nd</sup> Training Course on WMO SDS-WAS. Antalya (Turkey), Nov 11.
- Support to the SDS-WAS Africa Project (1)

#### **Training fellowships**

In June 2011, ten Iberoamerican students finished their two-year International Course on Applied Meteorology at AEMET HQs, Madrid (Spain)

### 5. Sources of Funding

All activities have been funded by the Trust Funds that AEMET keeps within WMO.

- (1) In cooperation with AECID (International Development Agency of Spain)
- (2) In cooperation with EUMETSAT
- (3) In cooperation with ECMWF
- (4) In cooperation with CEDDET (Centre on Distance Learning for the Economical and Technological Development of Spain)

#### 6. Challenges in Resource Mobilization for 7. Opportunities for Increased Activity for your Activities / Projects / Events your Activities / Projects / Events Difficulties in keeping the same level of Better coordination/alignment with the investment in the future from AEMET budget environmental policies of the International because of the current budgetary reductions in Development Agency of Spain in order to leverage the expenses for the development of Spain. NMHSs. Enhancement of horizontal cooperation between regional powerful NMHSs and the rest (case of Ibero America)

## 8. Opportunities for more cooperation with other members / organizations

The new MoU signed in 2011 between AEMET and WMO provides with better ways to control the trust funds on near-real time.

Some of the on-going cooperation projects are going to be proposed as GFCS activities.

SWITZERLAND		USD 2012,
	USD 2011	Planned
European UV Calibration Centre	182'700	182'700
Quality Assurance and Science Activity	93'200	93'200
Centre (QA/SAC) for ozone, carbon dioxide		
and methane		
World Calibration Centre (WCC) for ozone,	274'000	274'000
carbon monoxide and methane		
Global GAW Station Kenya, Equipment and	188'500	191'300
personnel expenses including Kenya-		
Switzerland Trust fund		
World Radiation Centre (PMOD/WRC),	2'255'200	2'393'600
including World Infrared Calibration Centre		
and World Optical Depth Research and Cali-		
bration Centre		
Voluntary cash contribution to WMO AMDAR	45'600	0
Panel		
Voluntary cash contribution to the WMO	27'400	0
RAVI Conference on Social and Economic		
Benefits of Weather, Climate and Water		
Services		
World Climate Conference III follow up,	219'200	328'900
Global Framework for Climate Services		
(GFCS)		
Voluntary cash contribution for GCOS	109'600	32'900
Cooperation Mechanism		
SPARC International Project Office	54'800	54'800
CIMO Trust Fund, Regional Office Europe	115'100	116'800
Portuguese Language Translation	5'500	5'500
Total contributions	3'570'800	3'673'700

# Report on the VCP and related co-operation activities in 2011 and outlook 2012

- Switzerland continuously operates the World Calibration Centre and Quality Assurance/Science Activity Centre for ozone, carbon monoxide and methane at the Swiss Federal Laboratories for Materials Testing and Research (EMPA, Dübendorf): EMPA provides calibration services, station audits, trainings and operational support for the global GAW network central facilities in favor of the GAW Programme.
- Following the renewed decision of the Swiss Federal Government, Switzerland will con-tinue its involvement with the World Radiation Centre Davos. As in the past, the World Radiation Centre will be jointly financed by the Swiss Federal Government, the Canton of Grisons and the township of Davos. The World Radiation Centre Davos provides the fol-lowing services:
- The World Optical Depth Research and Calibration Centre (WORCC): WORCC provides quality control and quality assurance for operational aerosol optical depth measurements at a dozen of global GAW stations.
- A calibration centre for infrared radiation
- The European UV Calibration Centre
- MeteoSwiss and EMPA regularly provide capacity building and consumables to the global GAW stations in Kenya.
- Switzerland sponsored the WMO RAVI Conference on Social and Economic Benefits of Weather, Climate and Water Services in monetary form.
- Switzerland supports the GCOS Cooperation Mechanism with cash contribution.
- The Swiss voluntary contributions for 2012 will amount to approximately the same sum as in 2011.

#### **UNITED KINGDOM**

1. Country	
United Kingdom	
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)
~\$1,448,619.10 (Converted from GBP @ average 2011 rate 1:1.6038)	~\$1,683,990

# 4. List of Activities / Projects / Events in 2011 related to contribution

## Funding overview:

The main UK contribution to WMO VCP is funded as part of the UK Public Weather Service (PWS) which sets some priorities:

- Improved protection of life and property of British Citizens overseas through the provision of sustainable public weather services by developing country National Meteorological and Hydrological Services (NMHSs).
- Sustained, and optimally improved, levels of observation data available on the WMO Information System.
- Increased access to forecast and observational data by developing country NMHSs via the World Weather Information Service.
- Ensure the continued unrestricted exchange of data and products, and effective results of WMO Programmes.

In addition, we seek to mobilise resources from other donors, where possible (Additional sources of funding are noted along with the activities highlighted below)

#### **Projects Highlights from 2011:**

#### Project area - Observations

- Continued support was provided to the GUAN stations at Seychelles and Gough Island (mainly in the form of equipment supplies), as well as support to GUAN stations in the Pacific (including Funafuti, Tarawa, Rarotonga and Pitcairn) through the 'Pacific Fund', managed by MetService New Zealand.
- 2011 has seen negotiations continue with the Government of St Helena, Ascension and Tristan da Cunha, for a sustainable arrangement for the St.Helena station. We are currently implementing the replacement of the Hydrogen Generator and plan to install a new MMS (Met. Monitoring System)
- UK VCP has continued to assist with a GCOS funded project in Madagascar. This aims to install 11 AWS across the country and should be completed by spring 2012.
- UK VCP also assisted with a WMO VCP funded project, providing project management for the refurbishment and upgrading of the AWS equipment in St. Lucia, strengthening the existing Early Warning System.

#### Project Area – Forecasting& NWP

- Continued support was provided to the WMO SWFDP, including participation in the management teams for both the Southern Africa and Eastern Africa projects and the continued delivery of Global Centre products to the Southern Africa, Eastern Africa and Pacific projects.
- Forecaster training was provided for SWFDP East-Africa in November utilising Paul Davies form the Met Office Operations Centre followed by a week of Public Weather Service

- training for attendees, designed and delivered by one of the Met Office 'PWS Advisors'.
- UK VCP has been assisting WMO RMO with the 'Mobile Weather Alerts' project, linking to
  the SWFDP East Africa and being run in partnership with Uganda Department of
  Meteorology.UK VCP supporting activities have included the implementation of a 4Km NWP
  model over Lake Victoria and we are currently working on the provision of lake surface
  temperatures to enhance the modelling in this area.
- In early 2011 the Met Office Africa LAM was upgraded from 20km to 12km resolution and is currently disseminated in graphical form via the website (alongside the 4km Lake Victoria model and ATD lightning product <a href="http://www.metoffice.gov.uk/weather/africa/lam/index.html">http://www.metoffice.gov.uk/weather/africa/lam/index.html</a>). It was also arranged during 2011 that a 'cutout' from the Global model (25km) for the whole of Africa would be transmitted as GRIB data via EUMETCAST and this is now live.
- In addition, towards the end of 2011 UK VCP began working on a new website to enhance the channels of access to model products including the Africa LAM, 4km Lake Victoria model and ATD lightning. This website is based on the SATREP/EUMETRAIN website and will allow more interaction by the forecasters in Africa e.g. overlaying products, compared to the static graphics currently available on our website (due to be launched spring 2012).
- The annual Met Office/WMO Aviation Seminar was developed and delivered to ~ 25 delegates at RTC Alanya, Turkey, in September, with logistical support provided by the Turkish State Meteorological Service. The training was again based on the Tuition and Assessment Kit to support implementation of WMO-258 certification for forecasters, which was developed by CAeM with funding from UK VCP.

### **Project area - Climate Services**

- UK VCP again funded a number of students to participate in the e-SIAC course(Statistics In Applied Climatology) run by Reading University. Funding has also been put towards an anticipated Face-to-face SIAC course to be held at CIMH in 2012.
- Support for Climsoft activities continued including work in Zambia (see below) and Rwanda.
   For the latter, support was provided to assist Samuel Machua from Kenya Meteorological
   Department to travel to Rwanda to undertake work on the Climsoft Database and integration of observations. This work will continue in 2012.

#### **Project area - IT and Communications**

- The "localisation" project has continued in Zambia, implemented using Climsoft on second-user PCs supplied by Computer Aid International. An initial 'Train-the-Trainer' workshop was held in Lusaka in March 2011 prior to roll-out of the computers to provincial stations. Additional funding was supplied during 2011 to support three persons from ZMD to travel to ACMAD in Niger to complete more intensive Climsoft training. This should aid with the Climsoft training in the Provinces and integration of data at ZMD HQ.
- The RMDCN (Regional Meteorological Data Communications Network) connection at SAWS was approved by ECMWF in August 2011 and has been operational since November 2011. SAWS has responsibility for the Southern African region as a designated Regional Telecommunications Hub (RTH) and this connection is critical for the effective transmission, reception and relay of meteorological data. The Met Office has worked in partnership with SAWS to support this important connection, in particular through the provision of financial support for the installation/initial costs of the ECMWF/Orange 2Mpbs connection.

#### **Project area - Service Delivery**

- Support has continued for TV weather presentation delivery by NMHSs. Hardware components were replaced at a number of sites including Rwanda, Malawi, The Gambia and Madagascar.
- Support has also continued for users of WeatherEye-PC, the TV weather graphics package
  provided free from the UK to developing country NMHSs. The end of 2011 has seen the
  development of support web pages on our met e-learning site at <a href="www.met-elearning.org/moodle">www.met-elearning.org/moodle</a> to support users remotely, and capture ongoing requirements and

- development needs.
- Funding was provided for two employees from Guinea Met Service to travel to Mauritania for media training this has helped them to increase the number of skilled personnel in Guinea in media presentation and to restart production of bulletins.

Work has continued on the implementation of a TV weather presentation system in the Comoros Islands, being undertaken in partnership (and with funding from) WMO VCP. Training and installation has been delayed whilst waiting for the construction of their new building – however the work can now proceed and it is hoped that this project will be completed by March 2012.

#### **Human Resources Development**

- Our sponsored delegate from The Gambia successfully completed her Msc in Applied Meteorology at Reading University in September.
- During 2011, UK VCP worked closely with WMO ETR and Reading University to develop a new MSc in "Applied Meteorology & Climate with Management". Six students are currently undertaking this course – from Zimbabwe, Lesotho, Cameroon, Uganda, Trinidad & Tobago, and Bhutan – sponsored by WMO ETR and UK VCP.
- We continued to provide support for a delegate from Uganda for their in-country MBA course, which was completed successfully this year.
- Following an evaluation of the 'Management by e-learning' course in 2010, the course was
  revised and relaunched as the "Essentials of Management" course. Over 40 students from
  developing country NMHSs began the on-line course in September 2011 and are due to
  complete in February 2012.
- Advisory services were provided from UK VCP during 2011 for a project funded by the Government of Rwanda on organisational transformation of Meteo-Rwanda.

#### **Disaster Contingency/Others**

- UK VCP were pleased to be able offer support to the Haiti Mission during 2010 through the
  provision of a Met Office forecaster to the forecasting desk set up in Martinique. A forecaster
  returned to Martinique in December 2010 to provide additional support through to March
  2011.
- In 2010 Tom Butcher from the Met Office was seconded to the WMO Resource Mobilisation Office for a year's secondment which finished in April 2011. Wayne Elliot has joined WMO as a secondee for two years, in the same position, beginning August 2011.

# 6. Challenges in Resource Mobilization for your Activities / Projects / Events

- A challenge is the alignment of the NMHS objectives with those of the donor agencies (the latter often being more focused on the 'outcomes' further down the value chain). In addition, there is a need for greater awareness amongst donor agencies, and understanding of, the link between the (important) work that is undertaken by the NMHS and the development outcomes that donor agencies aspire to.
- Sustainability of projects is also a challenge and ensuring ownership/engagement (and long term support) for projects, particularly from Governments.

## 7. Opportunities for Increased Activity for your Activities / Projects / Events

Activities in 2012 will cover similar project areas to that outlined in the 2011 report. Some of the areas where we are likely to see increased activity/opportunities include:

- The GFCS and WMO Service Delivery Strategy. These are both (interlinked) areas that are likely to present further opportunities for capacity development activities. This also links up with the ownership/ sustainability issue in there should be a focus on working in partnership with NMHSs to ensure that they are providing services that are customer focused. In addition, this links in with the work that the Met Office has been doing in partnership with DFID on the Climate Services Research Partnership and work on seasonal forecasts.

	- In line with this, we also anticipate increased activity in terms of working with NMHSs on 'institutional development' and organisational change.
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## 8. Opportunities for more cooperation with other members / organizations

- Joint Adaptation Fund proposals?Joint assistance from donor countries for the delivery of larger scale projects coordinated by WMO?
- Joint 'demonstrator' activities e.g. institutional strengthening focused on one country/region over a longer time period?

## **UNITED STATES OF AMERICA**

1. Country	
USA	
2. Overall national contribution in 2011 (estimate in USD)	3. Overall estimated national contribution in 2012 (in USD)
[2,090,000.00 USD]	[Unknown]
4. List of Activities / Projects / Events in 2011 related to contribution	5. Sources of Funding
Project 1: Developing a low latency data transmission system for meteorological stations in Africa. (Capacity Building & Equipment; up to 1 year)	U.S. Department of State
Project 2: Observational Surface Data to meet Global Framework for Climate Services (Data Rescue; up to 1 year)	U.S. Department of State
Project 3: Roving Seminars on Weather, Climate, and Farmers (Capacity Building; up to 1 year)	U.S. Department of State
Project 4: Tropical Online Degree Program (Training Course Development; up to 1 year)	U.S. Department of State
Project 5: Aviation Climatology Program (Training Course Development; up to 1 year)	U.S. Department of State
Project 6: QMS Implementation & Maintenance Training (Training Course Development; up to 1 year)	U.S. Department of State
Project 7: Workshop for Enhancing the Framework for Climate Services (Capacity Building; up to 1 year)	U.S. Department of State
Project 8: Hurricane Cmte HC-34 2012 (Technical Conference; up to 1 year)	U.S. Department of State
Project 9: iMet-1500C Training Class 1 (Maintenance Training, up to 1 year)	U.S. Department of State
Project 10: iMet-1500C Training Class 2 (Maintenance Training, up to 1 year)	U.S. Department of State
Project 11: Proton Series 1 Training Proposal (Maintenance Training, up to 1 year)	U.S. Department of State
Project 12: African Training Desk (Capacity Building; up to 1 year)	U.S. Department of State
Project 13: Enhancing Caribbean Climate Services to Support DRR (Workshop; up to 1 year)	U.S. Department of State
Project 14: National Weather Service/JIMAR Pacific International Desk (Capacity Building; up to 1 year)	U.S. Department of State
Project 15: ITIC Training Program on Tsunami Warning and Mitigation Systems (Training Program Development; up to 1 year)	U.S. Department of State
Project 16: SPREP Regional Meteorological Services Directors Meeting (Biannual Meeting, up to 1 year)	U.S. Department of State
Project 17: RAV SWFDDP - Full Demonstration Phase (Technical Assistance; up to 1 year)	U.S. Department of State
Project 18: Climate Services Network 1st International Conference (Technical Conference; up to 1 year)	U.S. Department of State
Project 19: Spanish Translation of COMET MetEd Modules	U.S. Department of State

(Training Course Development; up to 1 year)	
Project 20: Workshop of Online Hydrology Course Delivery at RTCs (Workshop; up to 1 year)	U.S. Department of State
Project 21: Develop Critical Aviation Learning Program (Training Course Development; up to 1 year)	U.S. Department of State
Project 22: The 7th KKP-BPPT-NOAA Capacity Building and Training Workshop (Workshop; up to 1 year)	U.S. Department of State
Project 23: Flood Inundation Mapping for the Rio Grande & Rio Bravo (Technical Assistance; up to 1 year)	U.S. Department of State
Project 24: Training (Desk) for International Monsoon Forecasters (Capacity Building; up to 1 year)	U.S. Department of State
Project 25: Multi-Hazard Early Warning System and Ilopango Basin River Flood System, El Salvador (Technical Assistance; up to 1 year)	U.S. Department of State
Project 26: RFS & Multi Hazard EWS for Sabinal River Basin (Technical Assistance; up to 1 year)	U.S. Department of State
Project 27: Tsunami Enhancing Multipurpose Sea Level Monitoring and Forecasting Capabilities in the Caribbean and Adjacent Regions (Capacity Building; up to 1 year)	U.S. Department of State
Project 28: Tropical / South America Desk (Capacity Building; up to 1 year)	U.S. Department of State
6. Challenges in Resource Mobilization for your Activities / Projects / Events	7. Opportunities for Increased Activity for your Activities / Projects / Events
Speedy implementation of contracts and grants through	Better leveraging of funds with other Federal Agencies and project

## 8. Opportunities for more cooperation with other members / organisations

Possible cooperative activities with Finland and South Korea in Africa. Closer relationship amongst GPC's. More collaboration with World Bank and FAO.

#### ADAPTATION FUND PROJECT SUBMISSION PROCESS

#### **BACKGROUND**

The Adaptation Fund (the Fund) was established by the Parties to the Kyoto Protocol of the UN Framework Convention on Climate Change (UNFCCC) to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. The Fund is financed with 2% of the Certified Emission Reduction (CERs) issued for projects of the Clean Development Mechanism (CDM) and other sources of funding.

WMO became accredited to the Adaptation Fund as a Multilateral Implementing Entity in December 2010. The accreditation will allow WMO to work with members in developing countries to submit projects aligned with National Adaptation Plans to the Adaptation Fund for funding.

These projects could include developing early warning systems to ensure that vulnerable communities have sufficient time to protect their lives, property and livelihoods from extreme weather and climate events. Establishment of effective climate services to ensure that governments and communities have access to the best possible climate change information that is tailored to their requirements is also a potential focus.

WMO initiated discussions with the AF Secretariat concerning the submission of regional proposals related to modernization of NMHS of eligible of countries to support developing sustainable multi-hazard early warning systems. Initial with the AF Board (13<sup>th</sup> meeting) indicated that there was feasible approval for the third quarter 2011 timeframe for Board consideration. However, during the 14<sup>th</sup>, June 2011), 15<sup>th</sup> (sept 2011) and 16<sup>th</sup> (Dec 2011) Adaptation Fund Board Meetings, the Board further discussed the issue of modalities for funding regional projects or programmes and decided they needed clarity concerning the added value and qualitative criteria that should be applied to regional initiatives. The committee recommended the establishment of an ad-hoc working group to further consider the criteria for regional projects and the implication of this approach on country funding caps.

Considering this progression of events, as well as the likely timeframe prior to a decision by the AFB on regional projects, WMO is now proposing the following process for supporting individual national submissions with a goal to improving national observation networks and increased human capacity development; preparing countries for an eventual linkage to regionally based activities and programmes.

#### **AIMS AND OBJECTIVES**

This concept note aims to define a framework through which WMO and its Members can work together in the most efficient and appropriate manner. The roles and responsibilities of WMO and the members on behalf of which projects are to be submitted, are clarified and expected deliverables from each side are outlined to ensure a smooth submission process. Moreover, the necessary resources needed are identified to enable WMO to submit appropriate projects which are aligned with the overall objectives of the Fund.

#### PROPOSAL DEVELOPMENT AND SUBMISSION PROCESS

- 1. WMO will inform all eligible Member countries through a circular letter describing the proposed process.
- 2. The Permanent Representative will need in the first instance obtain "Approval in Principle" that the Designated Authority, the nominated National Focal Point to the

- Adaptation Fund, indicating that the Government will support the approach to the AF by the WMO.
- 3. The Permanent Representatives will be asked to submit a Concept Note for their proposed project as per template on Annex A of this document. The AF Project Officer in discussion with frelevant WMO personnel will consider the eligibility of the proposed concept.
- 4. The member country NMHS and WMO Secretariat will begin formulating the project design.
- 5. An appropriate consultant will be assigned to help develop and write the proposal with the PR as needs and funds allow.
- In parallel, the AF project officer within the WMO Secretariat will facilitate discussions between the country, the consultant and the appropriate branches within the WMO Secretariat to make sure the proposed project is sustainable and fits within AF requirements.
- 7. The AF project officer will liaise with the Fund secretariat and provide the necessary support during the proposal review process.
- 8. Upon approval of the Fund, the country will be informed and AF project officer will facilitate the acceptance process.
- 9. WMO will support the project's implementation.

# WMO SECRETARIAT AF PROPOSAL SUBMISSION PROCESS MANAGEMENT STRUCTURE

The **Director of Resource Mobilisation** is responsible for the oversight of the submission process.

The **Adaptation Fund Project Officer**<sup>1</sup> will be responsible for following up on the policy and guideline changes within the Adaptation Fund as well as the necessary communication between the AF and the country wishing to access financial support from the AF. Furthermore, the AF Project Officer will be responsible for the day to day interaction with countries submitting concepts, and will coordinate during the project implementation process ensuring project deadlines are met and necessary reports are submitted to the AF, and other stakeholders, in a timely manner.

A **Consultant**<sup>2</sup>, hired on an as-needed basis, will be responsible for the proposal writing process ensuring that it meets the country objectives as well as meets the AF's overall requirement.

#### PROPOSED PROJECT MANAGEMENT SUPPORT

During the accreditation process, WMO was requested to submit their Project Management Framework to the AF. It is necessary to ensure that the WMO Secretariat follows this framework to show the AF that we are consistent in our project management processes.

DRA-RMO is currently in the process of establishing this Project Management process utisiling existing resources; however following the process outlined above will have further human resource needs implications as described in Annex B to this document.

<sup>&</sup>lt;sup>1</sup> It is envisaged that this cost will be added to the budget proposal in AF proposals and recovered at a later stage by WMO, as is the current practice at UNDP and accepted by the Adaptation Fund.

<sup>2</sup> This part will be added to the budget proposal in AF proposals and recovered at a later stage by WMO, as is the current practice at UNDP and accepted by the Adaptation Fund.

<sup>&</sup>lt;sup>2</sup> This cost will be added to the budget proposal and recovered at a later stage by WMO, as is the current practice at UNDP and accepted by the Adaptation Fund.

## WMO Project Management Framework

WMO Secretariat is currently oveseeing numerous NMHS development projects in various regions focused on modernization and improved services and also working in partnership with multi-lateral donors and implementers including the World Bank, UNDP, European Commission aand many individual country Overseas Development Agencies (ODA's).

Currently, implementation of development projects tends to be fragmented, with loose internal coordination across Technical/Scientific Programmes and Regional Offices and a lack of an organization-wide project implementation oversight. Thus lack of an internal, insitiutionalized project management framework leads to a variety of project formulation styles, monitoring, reporting and evaluation procedures.

To overcome the above shortcomings, it is clear that greater internal coordination is needed for more effective and efficient project implementation. Improved internal coordination should lead to increased value-adding by joining of complimentary activities at regional levels. Cg-XVI discussed this matter and supported the efforts to better institutionalize project management arrangements within the Secretariat for these cross-cutting regional projects (Doc 6.1).

This document outlines the project management structures that WMO Secretariat is putting in place to improve project delivery and enhance successful achievement of results and impacts. The methodology described below is consistent with internationally recognised project management. Using this proposed project management framework WMO will ensure projects are designed, appraised, implemented and evaluated in the most efficient and consistent manner. This framework also indicates how the WMO will provide project oversight and in particular how project risks will be identified and managed.

#### **Project Management in WMO**

In WMO the Project Management process is currently dispersed somewhat informal at times and tends towards reactive/adaptive rather than being a structured driven process which has the potential to cause issues with donors with regard to the pace of implementation, disbursements and overall expenditure of allocated funds and internally and with members in terms or priority setting and allocation of effort.

To address this, it is proposed that the process of Project Management within WMO could be structured addressed as follows:

#### Overarching elements:

- Project Oversight Board
- Project Coordination Unit

#### **Project Specific Elements:**

- Project Steering Committee
- Project Delivery Team

#### **Project Oversight Board (POB)**

A **Project Oversight Board** within house comprised of Directors (e.g. D-DRA, D-WDS, D-CLW, D-OBS, C-FIN) is proposed to ensure successful delivery. The Project Oversight Board will guide development of project proposals and implementation plans.

The terms of reference of the Project Oversight Board could be as follows:

- Task the **Project Coordination Unit** with the development of documentation that is of a standard for submission to various donors.
- Oversee the implementation of projects so that objectives are met and benefits realised in such a way that meets the requirements of the funding mechanism.
- Ensure that appropriate resources are made available to ensure successful delivery.
- Take decisions as necessary throughout the lifetime of the project and proactively manage the risks associated with the project.

#### In relation to ongoing projects specifically, the Project Oversight Board will consider:

- Monitoring of implementation through regular Progress Reports of each project
- Issues causing delays or resource replanning
- Potential for increased synergies between projects and cooperation between Departments
- Any contingency measures needed to ensure successful completion
- Review of deliverables, final reports, evaluation and audit reports

#### In relation to new projects specifically the Project Oversight Board will consider:

- Does the project proposal meet the criteria for eligibility of the particular funding mechanism?
- Does the project have (or be able to achieve) relevant endorsement at a government level and is it consistent with national sustainable development strategies?
- Are the objectives of the project technically sound?
- Does the Secretariat have, or can obtain, the resources to successfully implement this project alongside the other running projects and ongoing business?
- Based on these considerations, the POB will prioritize, accept or reject project proposals

The Board should meet quarterly to consider potential financing opportunities and related Concept Proposals and review implementation progress of funded projects with a view to resolving any issues / roadblocks to timely implementation. The Board will be chaired by Director Regional Activities or a nominated proxy.

#### **Project Coordination Unit (PCU)**

Given the broad scope of current and anticipated externally funded projects it is increasing obvious that a dedicated Project Coordination Unit is needed to coordinate across WMO Technical Programmes and Regional Offices on project implementation, liaise with donors and ensure timely reporting and visibility of projects. In the initial phase it is proposed that this unit compromised of:

- **C/Project Coordination Unit (P5)** oversee implementation of projects and ensure coordination across the WMO Technical Departments and Regional Offices responsible for project delivery.
- Project Officer (P2-3) support the C/Project Coordination Unit to compile donor reports, procurement support, communicating with NMHS operational staff, preparing documentation for Project Board Meetings.

- G Staff Support (G4-5)
- Short Term Project Managers for larger projects the cost of hiring a project-specific Project Manager (P4) to be placed at WMO or in the region should be built into the project budget, as the donor / financing mechanism permits.

#### The PCU focus of activities to include:

- A. Coordinate proposal development;
- B. Establish arrangements for project implementation;
- C. Instigate measures for financial and project risk management;
- D. Ensure monitoring and evaluation arrangements;
- E. Ongoing liaison with donors, reporting to donors at agreed timescales.
- F. Visibility of projects and donors

Proposal writing should be contracted out as appropriate to the scale of the project and the financing source.

#### PCU Reporting and documentation

Project highlight reports will be prepared by the PCU ahead of each Project Oversight Board meeting – or more frequently if deemed appropriate. The highlight report should contain the following elements:

- · Project, date and period covered;
- Progress achieved against the project plan;
- Use of resources (actual versus plan);
- Budget status (actual versus plan);
- Actual or potential problems do these impact the overall plan?
- Next milestones:
- Revised forecasts for cost and schedule.
- Set up an intranet website for each project

**Project Steering Committee (PSC):** For each major project a Project Steering Committee comprising of key stakeholders and partners will be assembled as appropriate to assist in guiding the direction of the project. Costs associated with meetings of the PSC should be identified in the project plan.

**Project Implementation Team:** For each project a **Project Delivery Manager** will be identified who will be either an **internal** technical expert who will directly oversee delivery of technical elements based on the main focus of the individual project (Hydrology, Climate Services, AgMet etc.), or a project officer hired externally.

For each major project of regional and national scope a Project Implementation Team commensurate to the size and scope of the project and comprised of professional staff in each Department identified by the relevant Director as key responsible for implementation of respective components of the project is required.

*Interim Arrangements:* Mr. Wayne Elliott, currently on secondment to RMO from Met Office (UK) will function as interim Chief Project Coordinaiton Unit. In this regard he will be assisted by JPOs Ms Salla Himberg (50%) and Mr Makotoa Suwa (50%). Mr Elliott reports to D/RMO.

**Potential Costs:** In the interim arrangements outlined above, existing resources will be utilised to initiate this improvement in development project management and implementation arrangements. In the long term it is assumed to build up a fund to support this arrangement through cost recovery arrangements embedded in new projects. The main purpose for introducing the PCU is to facilitate more effective management of resources.

## **APPENDIX 1**

## RA I - AFRICA

Beneficiary Countries	Project Title	Additional Information	Implementing Agency - Partners	Donor
	ViGIRisC project	Not yet defined	Météo France	FFEM
Angola	Zambezi River Flood Forecasting and Early Warning System Strategy 2008-2012	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services		WMO	AEMET
	AgriMet-Ops 2012-2014	Enhancement of Agricultural Meteorological Services / Direct farmer engagement	WMO / NMHS	Government of Norway
Benin	ViGIRisC project	Not yet defined	Metéo France	FFEM
	Niger-HYCOS phase II 2011-2014	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	AFD
	ViGIRisC project	Not yet defined	Météo France	FFEM
Botswana	Zambezi River Flood Forecasting and Early Warning System Strategy	Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	FFGS-Southern Africa	Activities: Support for Steering Committee meetings	WMO HRC, SAWS	USAID
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Agriculture Meteorology Project HEALTHMET: Prediction of meningococcal meningitis incidence trend		AEMET
Burkina Faso	Programme of Cooperation for CC Adaptation in West Africa /Greece Trust Fund for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
	AgriMet-Ops		WMO	Government of Norway
	ViGIRisC project	Not yet defined	Metéo France	FFEM
	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	AFD
Burundi	Severe Weather Forecasting Project 2012-2014	East Africa SWFDP - Activities: Reinforcement of the observing network, improvement of data collection and data quality assurance procedures, development of data banks, forecast products and forecasts, training	WMO	Government of Norway
	IGAD-HYCOS 2012-2015	Duration 2011-2012 phase I, 2012-2015 phase II	WMO, IGAD	EU

		Activities: Phase I review and update of the project document, Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation		
	East Africa Climate Services		WMO / ICPAC	KOICA
	ViGIRisC project		Météo France	FFEM
Cameroon	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	
	Appui à la gestion des ressources en eau du bassin du Congo 2012-2015	Activities: support to the institutional strengthening of the NHS, training, development of a water master plan	OIEau, CICOS	EU
Cape Verde	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
Central African	ViGIRisC project		Météo France	FFEM
Republic	Appui à la gestion des ressources en eau du bassin du Congo	Activities: support to the institutional strengthening of the NHS, training, development of a water master plan	OIEau, CICOS	EU
Chal	Programme of Cooperation for CC Adaptation in West Africa /Greece Trust Fund for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
Chad	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	AFD
Congo	ViGIRisC project		Météo France	FFEM
Côte d'Ivoire	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
	ViGIRisC project		Metéo France	FFEM
DR Congo	Appui à la gestion des ressources en eau du bassin du Congo	Activities: support to the institutional strengthening of the NHS, training, development of a water master plan	OIEau, CICOS	EU
Djibouti	IGAD HYGOS	Activities: Phase I review and update of the project document, Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation	WMO/IGAD/I CPAC	EC
	ViGIRisC project		Metéo France	FFEM

	East Africa Climate Services		WMO / ICPAC	KOICA
Ethiopia	IGAD HYGOS	Activities: Phase I review and update of the project document, Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation	WMO/IGAD/I CPAC	EC
	Severe Weather Forecasting Project	East Africa SWFDP - Activities: Reinforcement of the observing network, improvement of data collection and data quality assurance procedures, development of data banks, forecast products and forecasts, training	WMO	Government of Norway
	ViGIRisC project	Health in Ethiopia	Metéo France	FFEM
	ToT for Agricultural Meteorology Extension Programmes	Roving Seminars, Training of Agricultural Extension Agents	WMO	Rockefeller Foundation
	East Africa Climate Services		WMO / ICPAC	KOICA
Gabon	ViGIRisC project		Météo France	FFEM
Gambia	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
	Strengthening Hydrological and Meteorological Agencies	Identification (March 2012), USD 10-15M		IDA (WB)
Ghana	AgriMet-Ops	USD 880,000 (Ghana, Nigeria, Gambia, Mauritania, Mali, Burkina Faso, Niger, Cape Verde, Senegal, Guinea Bissau, Guinea, Côte d'Ivoire, Benin, Togo) 2012-2014	WMO	Government of Norway
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Agriculture Meteorology Project		AEMET
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
	ViGIRisC project		Metéo France	FFEM
Guinea	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	
	Senegal-HYCOS 2011-2012	Activities: formulation of the project document based upon preliminary WMO draft	OMVS (Compagnie Nationale du Rhône, WMO as supervising agency)	AFD-FFEM
Guinea Bissau	Afrimet: Conference of Directors of the West	Components:		AEMET

African National Meteorological and Hydrological

West Africa Marine Meteorology Project

	West Africa Agriculture Meteorology Project		
		WMO	Government of Norway
		WMO/IGAD/I CPAC	EC
ject	East Africa SWFDP	WMO	Government of Norway
uipment and enya-Switzerland	MeteoSwiss and EMPA regularly provide capacity building and consumables to the global GAW stations in Kenya: 2012 USD 191,300	MeteoSwiss, EMPA	Government of Switzerland
		Metéo France	FFEM
	Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation	WMO, IGAD	EU
rs of the West ll and Hydrological	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
l AWS project in	Installing 11 AWS (by summer 2012)	UKMetOffice	GCOS
C) project	Upgrade of Madagascar SYNERGIE forecasting system, and related services, including site training for forecasters and IT administrators on the new workstations.	Meteo France International	French Ministry of Foreign Affairs
nd climate change ederations		FMI	Ministry for Foreign Affairs of Finland
		Météo France	FFEM
ng and Early Warning	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	Activities: Support for Steering Committee meetings	HRC, SAWS	USAID
rs of the West ll and Hydrological	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project	WMO	AEMET
CC Adaptation in for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
		WMO	Government of Norway
		Metéo France	FFEM
	Activities: Reinforcement of the hydrological observing network, improvement of data	Niger Basin	
_		Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of Authority

			supervising agency)	
	Senegal-HYCOS	Activities: formulation of the project document based upon preliminary WMO draft	OMVS (Compagnie Nationale du Rhône, WMO as supervising agency)	AFD-FFEM
	ANADIA-Mali	Assessment of impacts of flood and droughts on agriculture, development of village-scale disaster reduction plans, development of methodological guidance, training	WMO (DNH, DNM, IBIMET-CNR)	Italy
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
Mouritonio	AgriMet-Ops		WMO	Government of Norway
Mauritania	Senegal-HYCOS	Beneficiary countries: Guinea, Mali, Mauritania, Senegal Value: 170'000 € Duration: 2011-2012 Activities: formulation of the project document based upon preliminary WMO draft	OMVS (Compagnie Nationale du Rhône, WMO as supervising agency)	AFD-FFEM
	Coastal EWS	Early warning Severe Weather Events for Fishers and Coastal Dwellers	WMO	Adaptation Fund
Mauritius	Indian Ocean Commission (IOC) project	Upgrade of Mauritius forecasting system, and related services including site training for forecasters and IT administrators on the new workstations.	Meteo France International	French Ministry of Foreign Affairs
Mozambique	Implementation of an automated early warning system for disaster risk reduction in the Búzi and Save River Basins	Support to the Mozambican Meteorological Institute INAM in the improvement of hydrometeorological services (regional weather forecasts for early warning and agriculture, wave and storm forecasts for coastal regions); Installation of 8 climate stations in Central Mozambique with the assistance of the Cologne University for Applied Sciences; Parallel setting up of data server and telemetric systems for the climate stations	DWD, Brazil, GIZ	
	The extension of Mozambique's flood warning system (inclusion of Northern and Southern parts of the country)	Under planning	DWD	
	SMS weather warning service and climate change training to national Red Cross federations		FMI	Ministry for Foreign Affairs of Finland
	PPCR: Strengthening Hydrological & Meteorological Information Services for Climate Resilience	Preparation (March 2012)		PPCR/IDA (WB)
	PPCR: Enhancing Climate Resilient Agricultural Production and Food Security	Preparation (March 2012)		PPCR/AFDB
	PPCR: Climate Change Technical Assistance - Project ID XPCRMZ024A	Preparation (March 2012)		PPCR/IBRD

	ViGIRisC project		Météo France	FFEM
	Zambezi River Flood Forecasting and Early Warning System Strategy	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	FFGS-Southern Africa	Activities: Support for Steering Committee meetings	HRC, SAWS	USAID
Namibia	Zambezi River Flood Forecasting and Early Warning System Strategy	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	FFGS-Southern Africa	Activities: Support for Steering Committee meetings	HRC, SAWS	USAID
	PPCR: Community Action Project for Climate Resilience	Approval on November 11, 2011 USD 63.0 million		PPCR/IBRD
	PPCR: Private Sector Investment to Build Climate Resilience in Niger's Agricultural Sector	Approved on December 20, 2011 USD 485,000		PPCR/IFC
Niger	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
8	Programme of Cooperation for CC Adaptation in West Africa /Greece Trust Fund for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
	ViGIRisC project	Water Resources Management in Niger (Project Kandadji	Metéo France	FFEM
	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
Niconio	AgriMet-Ops		WMO	Government of Norway
Nigeria	ViGIRisC project		Metéo France	FFEM
	Niger-HYCOS phase II	Activities: Reinforcement of the hydrological observing network, improvement of data collection and data quality assurance procedures, development of data banks, production of hydrological information and forecasts, training	Niger Basin Authority (WMO supervising agency)	AFD
Republic of Congo	Appui à la gestion des ressources en eau du bassin du Congo	Activities: support to the institutional strengthening of the NHS, training, development of a water master plan	OIEau, CICOS	EU
	'Organisational transformation' work	following on from work completed by consultant in 2011	UKMetOffice	Government of Rwanda
Rwanda	Severe Weather Forecasting Project	EA SWFDP	WMO	Government of Norway
	ViGIRisC project	- Training on GIS (2012)	Metéo France	FFEM
	IGAD-HYCOS	Activities: Phase I review and update of the project document, Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database	WMO, IGAD	EU

		enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation		
São Tome & Principe	ViGIRisC project	Training on GIS (2012)	Metéo France	FFEM
	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
Senegal	ViGIRisC project		Metéo France	FFEM
	Senegal-HYCOS	Activities: formulation of the project document based upon preliminary WMO draft	OMVS (Compagnie Nationale du Rhône, WMO as supervising agency)	AFD-FFEM
	Yearly consumables		UKMetOffice	
Seychelles	Indian Ocean Commission (IOC) project	Upgrade of Seychelles Automatic Messages Switching System (Transmet) and Synergie forecasting system, and related services.	Metéo France International	French Ministry of Foreign Affairs
Sierra Leone	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: Countries Emerging from Conflict and Natural Disasters Project		AEMET
	ViGIRisC project		Metéo France	FFEM
Somalia	IGAD-HYCOS	Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation	WMO, IGAD	EU
	ViGIRisC project	, , , ,	Metéo France	FFEM
South Africa	FFGS-Southern Africa	Beneficiary countries: Botswana, Namibia, Malawi, Mozambique, South Africa, Zambia and Zimbabwe Value: 20,000 US\$ Duration: 2010- 2014 Activities: Support for Steering Committee meetings	HRC, SAWS	USAID
South Sudan	Institutional capacity development in Khartoum and Juba, establishment of Juba meteorological office	Jul 2011 – Dec 2013	FMI	Ministry for Foreign Affairs of Finland
	Programme of Cooperation for CC Adaptation in West Africa /Greece Trust Fund for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
	IGAD-HYCOS	Phase II establishing the IGAD Regional Centre for Water Management (IRCWM) establishment of IGAD – HYCOS monitoring network, development of regional database and	WMO, IGAD	EU

		enhancing the national databases, development of IGAD – HYCOS Web page, strengthening of regional and national capabilities for WRM, monitoring and evaluation		
	Institutional capacity development in Khartoum and Juba, establishment of Juba meteorological office	Jul 2011 – Dec 2013	FMI	Ministry for Foreign Affairs of Finland
	IGAD HYGOS	Euros 5,000,000 (Djibouti, Ethiopia, Eritrea, Kenya, Sudan, Uganda), 2011-2014	WMO/IGAD/I CPAC	EC
Sudan	Programme of Cooperation for CC Adaptation in West Africa /Greece Trust Fund for Central Africa	1) GFCS 2) GCOS 3) AgriMet 4) Data Rescue 5) CHWG	WMO	Government of Greece
	IGAD-HYCOS		WMO, IGAD	EU
Swaziland	QMS Implementation for weather services	Feb 2012– Jun 2013	FMI	Ministry for Foreign Affairs of Finland
	Mobile Weather Alerts	Severe weather Alerts by SMS – Fishers and Farmers	WMO - Ericsson, UK MetOffice	Government of Norway
Tanzania	Severe Weather Forecasting Project	EA SWFDP	WMO	Government of Norway
	ViGIRisC project  Zambezi River Flood Forecasting and Early Warning System Strategy	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	Metéo France ZAMCOM, WMO	FFEM USAID
Togo	Afrimet: Conference of Directors of the West African National Meteorological and Hydrological Services	Components: West Africa Marine Meteorology Project West Africa Agriculture Meteorology Project		AEMET
	AgriMet-Ops		WMO	Government of Norway
	Mobile Weather Alerts	Severe weather Alerts by SMS – Fishers and Farmers	WMO – Ericsson, UK MetOffice	Government of Norway
Uganda	IGAD HYGOS		WMO/IGAD/I CPAC	EC
- Gunuu	Severe Weather Forecasting Project		WMO	Government of Norway
	ViGIRisC project		Metéo France	FFEM
	IGAD-HYCOS		WMO, IGAD	EU
	'Localisation project' – Climsoft application at HQ and provincial stations	Implemented using Climsoft on second-user PCs supplied by Computer Aid International. An initial 'Train-the-Trainer' workshop was held in Lusaka in March 2011 prior to roll-out of the computers to provincial stations. Additional funding was supplied during 2011 to support three persons from ZMD to travel to ACMAD in Niger to complete more intensive Climsoft training. This should aid with the Climsoft training in the Provinces and integration of data	UK MetOffice	
Zambia	'Localisation project' Climsoft application at HQ	Implemented using Climsoft on second user PCs supplied by Computer Aid International. An	UK MetOffice	

	and provincial stations	initial 'Train-the-Trainer' workshop was held in Lusaka in March 2011 prior to roll-out of the computers to provincial stations. Additional funding was supplied during 2011 to support three persons from ZMD to travel to ACMAD in Niger to complete more intensive Climsoft training. This should aid with the Climsoft training in the Provinces and integration of data at ZMD HQ		
	Climate Monitoring and early Warning System project	This project will support the Integrated Water Resources Management Information System of Zambia by modernising and extending the hydrological monitoring system at the national level, as well as strengthening the cooperation with the meteorological services.	DWD	KFW
	Strengthening Climate Information System	Identification (March 2012) USD 9.5M		PPCR/IDA (WB)
	PPCR: Private Sector Support to Climate Resilience in Zambia	Project Preparation Grant USD 410,000 Approved on January 25, 2012		PPCR/IFC
	Strengthening Climate Resilience in Zambia/Barotse (IBRD)	Project Preparation Grant USD 1.0 million Project Implementation Support and Supervision Services USD 491,000 Approved on June 29, 2011		PPCR/IBRD
	Strengthening Climate Resilience in Kafue River Basin (AfDB)	Project Preparation Grant USD 1.0 million Project Implementation Support and Supervision Services USD 390, 000 Approved on June 29, 2011		PPCR/AfDB
	ViGIRisC project		Météo France	FFEM
	Zambezi River Flood Forecasting and Early Warning System Strategy	Activities: Development of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	FFGS-Southern Africa	Activities: Support for Steering Committee meetings	HRC, SAWS	USAID
Zimbabwe	Zambezi River Flood Forecasting and Early Warning System Strategy	of a Flood Forecasting and Early Warning System Strategy for the whole of the Zambezi River Basin	ZAMCOM, WMO	USAID
	FFGS-Southern Africa	Activities: Support for Steering Committee meetings	HRC, SAWS	USAID

## Ra III AND RA IV - AMERICAS

## **Projects by Country**

<b>Beneficiary Countries</b>	Project Title	Addition information	Funding	Implementing Agency - Partners	Donor
Antigua and Barbuda	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012		FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS		FMI	Ministry for Foreign Affairs of Finland
Argentina	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services			AEMET
Bahama	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012		FMI, ACS	Ministry for Foreign Affairs of Finland
Банаша	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS		FMI	Ministry for Foreign Affairs of Finland
Danka dan	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012		FMI, ACS	Ministry for Foreign Affairs of Finland
Barbados	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS		FMI	Ministry for Foreign Affairs of Finland
Dalina	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012		FMI, ACS	Ministry for Foreign Affairs of Finland
Belize	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS		FMI	Ministry for Foreign Affairs of Finland
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services			AEMET
	PPCR Investment Plan Preparation				PPCR
Bolivia	Regional Climate Change Project & Flood Early Warning System pilot for a cross- border river catchment area	expected 2013-2015 (Peru, Ecuador, Colombia, Bolivia)		FMI	Ministry for Foreign Affairs of Finland
	Adaptation of agriculture and agricultural water use to climate change in the Andean countries	2012		DWD	GIZ
Brazil	Conference of Directors of the Ibero American Meteorological and Hydrological	Lines of action - Support to the IA-NMHSs in the provision of services to society			AEMET

	Services	- Support for weather forecasting and monitoring - Provision of Climate Services		
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services		AEMET
Colombia	Regional Climate Change Project & Flood Early Warning System pilot for a cross- border river catchment area	expected 2013-2015 (Peru, Ecuador, Colombia, Bolivia)	FMI	Ministry for Foreign Affairs of Finland
	Observation network and weather radar capacity development project	May 2012 – 2014	FMI	Ministry for Foreign Affairs of Finland
	Adaptation of agriculture and agricultural water use to climate change in the Andean countries	2012	DWD	GIZ
Costa Rica	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services		AEMET
	WMO-World Bank Costa Rica Hydro- Meteorological Early Warning System Trust Fund	Disaster Risk Reduction USD 255,000	WMO	WB
	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services		AEMET
Cuba	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
Chile	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services		AEMET
	PPCR Investment Plan Preparation			PPCR
Dominica	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs

				of Finland
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services		AEMET
Dominican Republic	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
	Observation network and weather radar capacity development project	expected May 2012 – 2014	FMI	Ministry for Foreign Affairs of Finland
	Sustainable water management in the province of Tungurahua	2012-2014, Includes a component for the establishment of meteorological stations in the province. Cooperation with the national meteorological institute (INAHMI), 1.346.600 US\$	DWD	KFW
Ecuador	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
	Regional Climate Change Project & Flood Early Warning System pilot for a cross- border river catchment area	expected 2013-2015 (Peru, Ecuador, Colombia, Bolivia)	FMI	Ministry for Foreign Affairs of Finland
	Adaptation of agriculture and agricultural water use to climate change in the Andean countries	2012	DWD	GIZ
	Multi-Hazard Early Warning System and Ilopango Basin River Flood System		NWS	U.S. Department of State
El Calandan	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
El Salvador	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
	PPCR: Disaster Vulnerability and Climate Risk Reduction Project	Project Preparation Grant Approved on April 19, 2011 USD 210,000		PPCR/IBRD
Grenada	Conference of Directors of the Ibero American Meteorological and Hydrological Services			
	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for

Nicaragua	Conference of Directors of the Ibero	Lines of action	AEMET	
	Development of the National Meteorological Service of Mexico	Capacity Development USD 14,000,000	WMO	Government of Mexico
Mexico	Modernizing the National Meteorological Service to Address Variability and Climate Change in the Water Sector in Mexico	USD 105M Pre-appraisal (Marc 2012)		IBRD
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
Jamaica	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, AC	Ministry for
Honduras	American Meteorological and Hydrological Services  PPCR Investment Plan Preparation	<ul> <li>Support to the IA-NMHSs in the provision of services to society</li> <li>Support for weather forecasting and monitoring</li> <li>Provision of Climate Services</li> </ul>	AEMET	PPCR
	development for service delivery  Conference of Directors of the Ibero	expected 2013-2015, Caribbeab SIDS  Lines of action	FMI	Foreign Affairs of Finland
	Regional DRR planning and development & QMS with ACS  Second phase regional capacity	Jan 2011 – Dec 2012	FMI, AC	Ministry for Foreign Affairs of Finland Ministry for
Haiti	Institutional Capacity Development for CNM (Haiti)	Forecasters rotation to Martinique In-kind support Canadian forecasters helping with Haiti Maintenance of Haiti Meteorological Services' website	Environn	Government of Canada  Ministry for
	Development of Meteorological and Hydrological services in Haiti	Capacity Development Short term needs CAD 6,500,000	WMO	Gov Canada
Guatemala	American Meteorological and Hydrological Services  PPCR Investment Plan Preparation	- Support of the Triamins in the provision of services to selecty - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	PPCR
	Conference of Directors of the Ibero	Lines of action - Support to the IA-NMHSs in the provision of services to society		of Finland
Guyana	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs
	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, AC	Ministry for S Foreign Affairs of Finland
	development for service delivery			Foreign Affairs of Finland

American Meteorological and Hydrological - Support to the IA-NMHSs in the provision of services to society

	Services	- Support for weather forecasting and monitoring - Provision of Climate Services		
Panama	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
Peru	Capacity Development to support modernization of the NMHS of Peru	Aug 2009 – Apr 2012	FMI	Ministry for Foreign Affairs of Finland
	Regional Climate Change Project & Flood Early Warning System pilot for a cross- border river catchment area	expected 2013-2015 (Peru, Ecuador, Colombia, Bolivia)	FMI	Ministry for Foreign Affairs of Finland
	Adaptation of agriculture and agricultural water use to climate change in the Andean countries	2012	DWD	GIZ
Saint Kitts &	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
Nevis	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
G : 41 ·	Building National Climate Resilience, One Person, One Household, One Enterprise, One Community, One Sector at a Time	Project Preparation Grant Approved on June 29, 2011 USD 376,000 Project Implementation Support and Supervision Services Approved on June 29, 2011 USD 2,375,500		PPCR/WB
Saint Lucia	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
	PPCR: Disaster Vulnerability and Climate Risk Reduction Project	Project Preparation Grant Approved on April 19, 2011 USD 1,220,000		PPCR/IBRD
Saint Vincent and the Grenadines	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
Suriname	Regional DRR planning and development &	Jan 2011 – Dec 2012	FMI, ACS	Ministry for

	QMS with ACS			Foreign Affairs of Finland
	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
Trinidad and	Regional DRR planning and development & QMS with ACS	Jan 2011 – Dec 2012	FMI, ACS	Ministry for Foreign Affairs of Finland
Tobago	Second phase regional capacity development for service delivery	expected 2013-2015, Caribbeab SIDS	FMI	Ministry for Foreign Affairs of Finland
Uruguay	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	
Venezuela	Conference of Directors of the Ibero American Meteorological and Hydrological Services	Lines of action - Support to the IA-NMHSs in the provision of services to society - Support for weather forecasting and monitoring - Provision of Climate Services	AEMET	

## RA II - ASIA

## **Regional Projects**

Central Asia	Regional cooperation through capacity development at the WMO RTC Tashkent	Aug 2011 – Dec 2013	FMI	Ministry for Foreign Affairs of Finland
	GCOM downscaling for decision making in the water sector in Central Asia	May 2011 – May 2012	FMI	Ministry for Foreign Affairs of Finland

## **Projects by country**

<b>Beneficiary Countries</b>	Project Title	Addition information	Funding	Implementing Agency – Partners	Donor
	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia USD 150,000			UNISDR/GFDRR
Armenia	FFGS-BSME	Beneficiary countries: Armenia, Azerbaijan, Bulgaria, Georgia, Turkey (Iraq, Lebanon, Syria) Value: 650'000 US\$ Duration: 2010-2012 Activities: development of a regional Flash Flood Guidance System, establishment of a regional centre		HRC, TSMS	USAID
Azerbaijan	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia USD 150,000			UNISDR/GFDRR

	FFGS-BSME	Beneficiary countries: Armenia, Azerbaijan, Bulgaria, Georgia, Turkey (Iraq, Lebanon, Syria) Value: 650'000 US\$ Duration: 2010-2012 Activities: development of a regional Flash Flood Guidance System, establishment of a regional centre	HRC, TSMS	USAID
	Development of an Integrated Coastal Inundation Forecasting System Coastal Early Warning	June 2012 – May 2015, 1.2 M\$ (KOICA USD 800,000, USAID USD 370,000)	KMA	KOICA, WMO, USAID EC
Bangladesh	PPCR: Climate Change Capacity Building and Knowledge Management (ADB)	Approved on June 7, 2011 USD 500,000		PPCR/ADB
Dangiauesii	PPCR: Promoting Climate Resilient Agriculture and Food Security (IFC)	First 50% - Approved on January 25, 2011 USD 131,000		PPCR/IFC
	Development of human capacity on operation of weather analysis and forecasting(Dispatch of experts, planned)	2009-2012	JMA	JICA
	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value: 2.5 million EURO	ICIMOD and WMO	Finland
Bhutan	Capacity Development to support modernization of observation networks, management and services of NMHS	expected 2013-2015	FMI	Ministry for Foreign Affairs of Finland
Ditutan	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value: 2.5 million EURO	ICIMOD and WMO	Finland
	PPCR: Flood-resilient Infrastructure Development in Sisopohon, Seam Reap, Kampong Thom, Battambang, Pursat and Kampong Cham	Project Preparation Grant Approved on June 29, 2011 USD 600,000		PPCR/ADB
	PPCR: Enhancement of Flood and Drought Management in Pursat and Kratie Provinces	Project Preparation Grant Approved on June 29, 2011 USD 600,000		PPCR/ADB
Cambodia	PPCR: Climate Proofing of Agricultural Infrastructure and Business-focused Adaptation	Project Preparation Grant Approved on June 29, 2011 USD 600,000		PPCR/ADB
Campoula	PPCR: Promoting Climate-resilient Agriculture, Forestry, Water Supply and Coastal Resources in Koh Kong and Mondulkiri Provinces (ADB)	Project Preparation Grant Approved on June 29, 2011 USD 600,000		PPCR/ADB
	PPCR: Mainstreaming Climate Resilience into Development Planning in Key Vulnerable Sectors (ADB)	Project Preparation Grant Approved on June 29, 2011 USD 200,000		PPCR/ADB
	MEKONG-HYCOS: Establishment of a regional flood information system	7-year project implementation until end 0f 2012. Value: 2.5 million EURO	MRC and WMO	France
China	TestBed & LivingLab			Ministry for Foreign Affairs of Finland

	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value: 2.5 million EURO		ICIMOD and WMO	Finland
East Timor	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia			UNISDR/GFDRR
Georgia	FFGS-BSME	Beneficiary countries: Armenia, Azerbaijan, Bulgaria, Georgia, Turkey (Iraq, Lebanon, Syria) Duration: 2010-2012 Activities: development of a regional Flash Flood Guidance System, establishment of a regional centre		HRC, TSMS	USAID
	Climate Change, modelling and observations			FMI	Ministry for Foreign Affairs of Finland
India	Bihar Koshi Flood Recovery Project	Under implementation (2010-)			GFDRR
	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value:		ICIMOD and WMO	Finland
Kazakstan	Pilot Wather Information System	Jan – Jun 2012		FMI	Ministry for Foreign Affairs of Finland
Kazakstan	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia			UNISDR/GFDRR
Kyrgystan	CAWa Project	One additional automated hydrometeorological monitoring station has been installed at Abramov glacier in Kyrgyzstan. Provides standard meteorological data. The station data will be accessible through the project website www.cawa-project.net, responsibility for the stations is planned to be handed over to the Hydromet services at the end of the project.  Two Training courses for specialists of Central Asian NMHSs and Afghan institutions: "Hydrometeorological Monitoring Stations: Installation, Operation, maintenance" and "Climate Change Impact Assessment and Hydrological Modelling."		DWD, GFZ, DLR, CAIAG, Federal Foreign Office	Government of Germany
	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia			UNISDR/GFDRR

	Central Asia Hydrometeorology	Effective (Jan 2012)			IDA (WB)
	Modernization Project	Tajikistan and Kyrgystan			IDA (WD)
Lao PDR	MEKONG-HYCOS: Establishment of a regional flood information system	7-year project implementation until end 0f 2012. Value: 2.5 million EURO	MRG	C and WMO	France
Myanman	Early warning systems for Cyclone Nargis affected areas (Dispatch of experts)	2009-2012	JMA	A	JICA
Myanmar	Establishment of a Flash Flood Guidance system	In preparation phase, funds have been secured		C, <b>WMO</b> , AA/NWS	USAID
	Capacity Development to support modernization of observation networks and management of NMHS	Feb 2010 – Dec 2012	FMI	I	Ministry for Foreign Affairs of Finland
	Building Resilience to Climate Related Hazards	USD 25M Pre-appraisal (March 2012)			PPCR/IDA (WB)
	PPCR: Mainstreaming Climate Change Risk Management in Development	Approved on October 18, 2011 USD 7.163 million			PPCR/ADB
Nepal	PPCR: Building Climate Resilience of Watersheds in Mountain Eco-Regions	Project Preparation Grant Approved on June 29, 2011 USD 900,000			PPCR/ADB
	PPCR: Building Climate Resilient Communities through Private Sector Participation	Project Preparation Grant Approved on June 29, 2011 USD 300,000			PPCR/IFC
	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value: 2.5 million EURO	ICIN	MOD and WMO	Finland
	Upgrade of Automatic Weather Stations	2011 – Dec 2012	FMI	I	Ministry for Foreign Affairs of Finland
Pakistan	HKH-HYCOS: Establishment of a regional flood information system	2 <sup>nd</sup> Phase Implementation until end of 2014. Value: 2.5 million EURO	ICIN	MOD and WMO	Finland
	Establishment of a Flash Flood Guidance system	Operational prototype established in September 2011, further developments needed, funding has been secured		C, WMO, AA/NWS	USAID
	Building an Early Warning System for Disaster Mitigation	2007-2008/1M\$, 2011-2013/3M\$	KM	ÍΑ	
Philippines	Improvement of the Meteorological Radar System at VIrac, Aparri and Guiuan and Installation of data satellite communication system	Grant aid (decision 2009), USD 29M, Three radar systems at VIrac, Aparri and Guiuan and data satellite communication system are being installed under this project.			Government of Japan
	Air Quality	St.Petersburg, 2004 – 2012	FMI	I	Ministry for Foreign Affairs of Finland
Russia	Wind Energy	Kolarctic	FMI	I	Ministry for Foreign Affairs of Finland
	Environmental Risks	South-East	FMI	I	Ministry for Foreign Affairs of Finland
Sri Lanka	COMS data receiving and analysis system	(2011-2013/2M\$)	KM		

	for Sri Lanka			
	Disaster Management Capacity Enhancement Project Adaptable to Climate Change (Dispatch of experts, equipment supply, provision of training in Japan)	2009-2012	JMA	ЛСА
	PPCR: Building Capacity for Climate Resilience Project	Approved on January 25, 2011 USD 200,000		PPCR/ADB
	PPCR: Improvement of Weather, Climate and Hydrological Service Delivery	Approved on March 8, 2011		PPCR/IBRD
	PPCR: Building Climate Resilience in the Pyanj River Basin	Project Preparation Grant Approval on December 2, 2011 USD 750,000		PPCR/ADB
	PPCR: Climate Science and Modelling Programme	Approved on January 25, 2011		PPCR/ADB
Tajikistan	PPCR: Enhancing the Climate Resilience of the Energy Sector	Approved on January 25, 2011		PPCR/EBRD
	PPCR: Agriculture and Sustainable Land Management	Approved on January 25, 2011		PPCR/IBRD
	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia USD 150,000		UNISDR/GFDRR
	Central Asia Hydrometeorology Modernization Project	USD 27.7M Effective (Jan 2012) Tajikistan and Kyrgystan		IDA (WB)
Thailand	MEKONG-HYCOS: Establishment of a regional flood information system	7-year project implementation until end 0f 2012. Value: 2.5 million EURO	MRC and WMO	France
	Environment & Air Quality	Dec 2010 – Dec 2012	FMI	Ministry for Foreign Affairs of Finland
Turkey	FFGS-BSME (Iraq, Lebanon, Syria)	Beneficiary countries: Armenia, Azerbaijan, Bulgaria, Georgia, Turkey (Iraq, Lebanon, Syria) Value: 650'000 US\$ Duration: 2010-2012 Activities: development of a regional Flash Flood Guidance System, establishment of a regional centre	HRC, TSMS	USAID
Turkmenistan	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia USD 150,000		UNISDR/GFDRR
Uzbekistan	Assessment of capacity in Central Asia and Caucuses	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Armenia, Azerbaijan, and Georgia USD 150,000		UNISDR/GFDRR
Viet Nam	Observation network, weather radar products and modernization of the NMHS	May 2010 – Dec 2012	FMI	Ministry for Foreign Affairs of Finland
	NHMS Modernization project	(2010-2012/0.1M\$)	KMA	
	Managing Natural Hazards Project	USD 30M		IDA (WB)

Component 2: Strengthening Weather Forecasting and Early Warning	Pre-appraisal (March 2012)		
Enhancement of flood forecasting skills to support installation of Doppler radars and other meteorological equipments in the northern part of Vietnam	Grant Aid, decision in 2010, USD 25M		Government of Japan
MEKONG-HYCOS: Establishment of a regional flood information system	7-year project implementation until end 0f 2012. Value: 2.5 million EURO	MRC and WMO	France

## RA VI EUROPE

<b>Beneficiary Countries</b>	Project Title	Addition information	Funding	Implementing Agency	Donor – Partners
	Hydropower system	2012-2014 2.693.200 US\$ feasibility study to be launched in the course of 2012			
Albania	Disaster Risk Mitigation and Reduction Project	Under implementation (2008-) USD 10M			GFDRR
Albania	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014		WMO/UNISDR	EC (DG Enlargement)
Bosnia and Herzegovina	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014		WMO/UNISDR	EC (DG Enlargement)
Bulgaria	FFGS-BSME	Beneficiary countries: Armenia, Azerbaijan, Bulgaria, Georgia, Turkey (Iraq, Lebanon, Syria) Value: 650'000 US\$ Duration: 2010-2012 Activities: development of a regional Flash Flood Guidance System, establishment of a regional centre		HRC, TSMS	USAID
Croatia	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014		WMO/UNISDR	EC (DG Enlargement)
	Air Quality monitoring network and legislation			FMI	Ministry for Foreign Affairs of Finland
FYROM	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014		WMO/UNISDR	EC (DG Enlargement)

	Reduction				
Kosovo	Air Quality monitoring	Aug 2010 – Aug 2012	FM	41	Ministry for Foreign Affairs of Finland
Latvia	Delivery of Weather Information System	Oct 2010 – Oct 2012	FM	11	Ministry for Foreign Affairs of Finland
Macedonia	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014	WM	MO/UNISDR	EC (DG Enlargement)
Moldova	Disaster and Climate Risk Management project	Under implementation (2010-) USD 10M			GFDRR
Montenegro	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014	WM	MO/UNISDR	EC (DG Enlargement)
Russia	Hydromet Modernization Project – II	Preparation (March 2012) USD 141.5M			WB - IBRD
Serbia	Phase 2 - Regional Cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange to support Disaster Risk Reduction	1,200,000 euros (Croatia, Turkey FYR Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Serbia) 2012-2014	WN	MO/UNISDR	EC (DG Enlargement)

## **RA V PACIFIC**

## **Projects by Country**

<b>Beneficiary Countries</b>	Project Title	Addition information	Funding	Implementing Agency – Partners	Donor
Cook Islands	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for		Bureau of Meteorology	Government of

the immediate benefit of 14 PIC partners, the wider Pacific community and

		the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.	\$1,025,850		
	Climate and Ocean Services Program for the Pacific (COSPPac)	National contribution in 2011:  \$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	Support to GUAN station in Ratoronga				NZ/Met Office UK Pacific Trust Fund
	Restoration of silent GCOS station				NZ/Japan Meteorological Agency/GCOS Secretariat/WMO
Federated States of Micronesia	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future. National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012  Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP)  - Consisting of the new Ocean Climate section and the next phase of the		Bureau of Meteorology	AusAID

Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation.

		Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication			
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
Fiji	Disaster Reduction Approaches for the South-West Pacific Countries using COMS (Communication, Ocean and Meteorological Satellite)	2 million USD, 2012~2013 (18 months)		USP (University of the South Pacific)	KOICA -KMA
	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future. National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID

	Tsunami modelling training to Pacific Island Countries (will be delivered under the PPSLP program)	estimated 2012 contribution \$126,000, (Fiji, Solomon Islands, Tonga)		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	Meteorology Training (Dispatch of experts to the training in Fiji for personnel of neighbouring countries)	2007-2012		JMA	JICA
	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
Kiribati	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands - Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	Support to GUAN station in Tarawa				NZ/Met Office UK Pacific Trust Fund

	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
Marshall Islands	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands - Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
Nauru	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future. National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate	Duration: 1991 to June 2012		Bureau of Meteorology	Government of

	Prediction Project (SPSLCMP)	Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850		Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	Sa0M, 4-year program, starting 2012  Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP)  - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation.  Component 2 - Sea Level Monitoring Project (SLM)  - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products)  Component 3 - Capacity Development & Communication (CDC)  - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
Niue	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012 Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the		Bureau of Meteorology	AusAID

- Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of

	Second phase of cooperation with SPREP	the Pacific Island countries as well as running several successful pilot projects around climate adaptation.  Component 2 - Sea Level Monitoring Project (SLM)  - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products)  Component 3 - Capacity Development & Communication (CDC)  - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication			Ministry for
	for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Foreign Affairs of Finland
	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
Palau	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands - Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
Papua New Guinea	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia

	PPCR Investment Plan Preparation				PPCR
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands - Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation. Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	PPCR: Enhancing the Climate Resilience of Coastal Resources and Communities	Project Preparation Grant Approved on March 29, 2011 USD 400,000			PPCR/IBRD
Samoa	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future. National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for		Bureau of Meteorology	Government of Australia

the immediate benefit of 14 PIC partners, the wider Pacific community and

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		the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850		
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	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	Improving the Weather Forecasting System and Meteorological Warning Facilities	Grant Aid (decision 2010), USD 8M, Seven AWS, one airport observation system, one wind profiler system and data communication systems are being installed under this project.			Government of Japan
	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013  Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
Solomon Islands	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been		Bureau of Meteorology	AusAID

		running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation.  Component 2 - Sea Level Monitoring Project (SLM)  - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products)  Component 3 - Capacity Development & Communication (CDC)  - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication			
	Tsunami modelling training to Pacific Island Countries (will be delivered under the PPSLP program)	estimated 2012 contribution \$126,000, (Fiji, Solomon Islands, Tonga)		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	PPCR Investment Plan Preparation				PPCR
Tonga	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012 Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
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		- A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication			
	Tsunami modelling training to Pacific Island Countries (will be delivered under the PPSLP program)	estimated 2012 contribution \$126,000, (Fiji, Solomon Islands, Tonga)		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
Tuvalu	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012  Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012  Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
	Climate and Ocean Services Program for the Pacific (COSPPac)	\$30M, 4-year program, starting 2012 Component 1 - Climate and Ocean Monitoring and Prediction Project (COMP) - Consisting of the new Ocean Climate section and the next phase of the Pacific Islands – Climate Prediction Project (PI-CPP). PI-CPP has been running for 8 years and has provided a seasonal forecast tool for 10 of the Pacific Island countries as well as running several successful pilot projects around climate adaptation.  Component 2 - Sea Level Monitoring Project (SLM) - The restructured South Pacific Sea Level Climate and Monitoring Project (SPSLCMP) with only the Sea level monitoring components (both in terms of data and real-time products) Component 3 - Capacity Development & Communication (CDC) - A new component focusing on training, work attachments, capacity mapping, institutional strengthening, traditional knowledge and communication		Bureau of Meteorology	AusAID
	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland
	Support to GUAN station in Funafuti				NZ/Met Office UK Pacific Trust Fund

Vanuatu	Pacific-Australia Climate Change Science and Adaptation Program (PACCSAP)	Duration: July 2011 to June 2013 Description: Research into the effects of climate change and develop the capacity of PIC and East Timor scientists, decision-makers and planners to access and apply information and tools to identify and develop in-country adaptation responses.  National contribution in 2011:	\$1,837,500	Bureau of Meteorology	Government of Australia
	The Pacific Climate Change Science Program	Duration: 2009 to June 2012 Description: Science-based program to assist PIC partners and East Timor understand how their climate and oceans have changed in the past and how they may change in the future.  National contribution in 2011:	\$2,530,500	Bureau of Meteorology, CSIRO, CWACR	AusAID, DCCEE
	South Pacific Sea Level and Climate Prediction Project (SPSLCMP)	Duration: 1991 to June 2012 Description: Collect, manage and make accessible sea level observations for the immediate benefit of 14 PIC partners, the wider Pacific community and the international scientific community. The project operates a network of 12 high precision tide gauge stations, associated telecommunications and dissemination systems, and data management services.  National contribution in 2011:	\$1,025,850	Bureau of Meteorology	Government of Australia
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	Second phase of cooperation with SPREP for the development of weather and climate services in the Pacific	expected 2013-2015, all SPREP countries		SPREP - FMI	Ministry for Foreign Affairs of Finland